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Improving U.S. Competitiveness

Proceedings of a conference held at
the U.S. Department of Commerce
Tuesday, September 22, 1987

U.S. DEPARTMENT OF COMMERCE
International Trade Administration

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UNITED STATES DEPARTMENT OF COMMERCE
INTERNATIONAL TRADE ADMINISTRATION
TRADE DEVELOPMENT
TRADE INFORMATION & ANALYSIS

IMPROVING U.S. COMPETITIVENESS

Proceedings of a Conference Held
at the Department of Commerce
Tuesday, September 22, 1987

Michael R. Czinkota, Conference Chairman
Deputy Assistant Secretary
for Trade Information and Analysis
International Trade Administration

This conference was sponsored by the Trade Information & Analysis unit of the International Trade Administration. The conference was designed to provide a forum to discuss various ideas on the topic of U.S. international competitiveness. The ideas, views, and statements presented here do not necessarily reflect the views of the International Trade Administration or the Department of Commerce, and should not be construed as Department policy.

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CONFERENCE SUMMARY

Panel I: Definition & Measurement of Competitiveness

This panel was chaired by Lew W. Cramer, Deputy Assistant Secretary for Science and Electronics. Panelists included: Allen J. Lenz of the International Trade Administration; Robert Z. Lawrence of the Brookings Institution; William Niskanen of the Cato Institute; and Gaylord E. Worden of the Census Bureau.

All four panelists concurred that there are no single meaningful or precise measures and definitions of competitiveness generally, or of U.S. international competitiveness in particular. Each panelist noted that in the press, the public mind, and among policy-makers and politicians, the U.S. trade deficit is often wrongly seen as a yardstick of U.S. competitiveness. While all agreed that trade and current account deficits were serious problems, to equate them with the more fundamental problem of U.S. international competitiveness is, as Gaylord Worden put it, "too narrow and misleading."

Dr. Lenz and Dr. Lawrence agreed that competitiveness should be considered from three different perspectives, that of the individual firm, the broader industrial sector, and the nation. The panelists noted that at the levels of individual firms and particular industrial sectors, competitiveness means that U.S. companies can produce and sell goods or services at a profit in international and domestic markets. Companies or industries can become more competitive by cutting wages, production costs, and prices of goods and services, or by improving efficiency and quality. Dr. Lenz added, and others concurred, that firms or industries may be helped by exogenous factors such as dollar depreciation. In select instances, import restictions can temporarily make certain sectors more "competitive," but each panelist stressed that such measures were counterproductive at the national level.

Although the panelists were most concerned with competitiveness from the national perspective, it is at this level that the conceptual differences in defining and measuring competitiveness became sharpest. In Dr. Lenz's view, being internationally competitive is essentially a matter of achieving a trade balance and competing with other industrialized countries, as well as increasingly capable low-wage countries, at exchange rates and wage levels that maintain or improve real incomes and living standards. Many developing countries have balanced trade accounts--or even surpluses--he noted, but their standards of living and productivity are far lower than those enjoyed in the United States. His conclusion: The United States can become more competitive if it increases productivity at rates favorable to other industrial countries; this in turn requires significant increases in U.S. capital formation, better utilization of physical capital, improved human resources, and effective trade policies.

Dr. Lawrence and Dr. Niskanen cautioned against mingling the "distinct" concepts of productivity and competitiveness. According to them, particular U.S. industries may experience more rapid productivity growth relative to those in other countries, yet still suffer a loss of competitiveness. As Dr. Lawrence put it, there is no necessary correlation between productivity growth and trade performance. For him, the key question is one of efficiency: Given its ample resources and factor endowments, he concludes that the U.S. is not utilizing them to the fullest possible extent, and U.S. competitiveness is lagging accordingly.

In Dr. Niskanen's view, the "principal of comparative advantage should remind us that a nation can not be competitive in all products or services" even if productivity in those industries is high relative to other countries. Moreover, efforts to make certain industries more competitive will make other industries less competitive. In this respect, Dr. Niskanen views the situation as a zero-sum game, while Dr. Lawrence views it in more positive sum terms.

With regard to measurement methods, great care must be taken to avoid basing conclusions on faulty or inconsistent data. Again, there are are no single measures for competitiveness that are totally accurate for cross-national comparisons, and some analysts stress different measures. For instance, Dr. Lenz suggested that comparing relative productivity in manufacturing is a useful measure, while Dr. Niskanen would simply measure the amount of goods and services sold by a nation.

All the panelists agreed that solid performance in economic fundamentals--such as price and exchange rate stability, moderated and sustained economic growth, high rates of savings and investment, sound fiscal and monetary policies, and having an educated and highly-skilled work force--is the key to being competitive. Indeed, Dr. Worden noted that until a broader measure of competitiveness is developed or certain micro measures are refined, comparing a variety of macroeconomic indicators is the best way to assess international competitiveness due to the higher quality of macroeconomic data available here and in other industrialized countries.

Despite the differences in opinion over the exact meaning and most precise ways to measure competitiveness, the general conclusion of this panel was that the preeminent U.S. position in the world economy is deteriorating. However, while all agreed that the U.S. faces serious economic and social challenges, no one suggested that that the United States was experiencing an absolute decline in productivity or standard of living, or that the U.S. was "losing the race." Rather, it is a matter of other countries inevitably catching up with the U.S. due to more rapid relative increases in productivity, savings and investment, and technology, as well as other social and economic factors.

Panel II: Improving Competitiveness Through Macroeconomic Means

This panel was chaired by Robert E. Watkins, formerly Deputy Assistant Secretary for Automotive Affairs and Consumer Goods. Panelists included: George N. Hatsopoulos of the Thermo Electron Corporation; John Makin of the American Enterprise Institute; Kenneth McLennan of the Machinery and Allied Products Institute; and Robert T. Green of the University of Texas at Austin.

Dr. Hatsopoulos opened the macro panel by confirming that while the trade deficit has focussed attention on the competitiveness issue, the roots of the problem go back 20 years. The imbalance in U.S. manufactures trade, which constitutes the bulk of the U.S. trade deficit, is indeed a serious but "short-term" problem. The more serious and fundamental concern is the fact that the U.S. has had the lowest rate of productivity growth in manufacturing of any of the five major industrialized countries since 1970.

According to Dr. Hatsopoulos' analysis, the bulk of which was strongly endorsed and reaffirmed by Dr. Makin and Dr. McLennan, there are several interrelated factors at work. Citing a strong correlation between the rate of capital formation and productivity growth (which is expressed as a capital to labor ratio), he noted that the low relative rate of capital formation in the U.S. is having a negative effect on the rate of investment in manufacturing.

The low rate of capital formation is traced primarily to poor U.S. savings performance. U.S. savings as a percentage of GNP is low compared to other industrial countries, and has declined due to low rates of personal savings and, more importantly, the dissavings resulting from the federal budget deficit. The net effect is that as the domestic capital stock is diminished, the cost of capital--which Dr. Makin defined as "an amalgam of real interest rate and tax factors"--increases. In turn, this results in a lower rate of investment per worker, which ultimately leads to lower productivity.

As Dr. McLennan noted, over the past 25 years, the United States' major competitors have consistently invested a higher proportion of GNP in plant and equipment, as well as civilian R & D, science and technology, and human capital. Given that the Japanese invest roughly twice as much per worker in manufacturing as the United States, Dr. McLennan considers it "surprising" that the United States has fared so well in recent years.

If the United States is to do better, however, it will have to undertake a series of difficult and painful actions. Improving U.S. competitiveness involves increasing the productivity of capital and/or labor at rates greater than our competitors at given factor costs. In simpler terms, being competitive means, as John Makin put it, being willing to work harder and more productively for less than anyone else.

The key problem is that as a high-wage country, the United States must achieve substantial increases in productivity if it wants to be competitive with other industrialized countries and rapidly-industrializing countries such as Korea and Taiwan. Part of the problem, as Dr. Makin suggested, is that the U.S. propensity for consumption over savings and investment is far higher than in these countries. If consumption is to be curbed and savings and investment increased, he added, then U.S. fiscal policy must be reversed to encourage savings over consumption. At a minimum, he proposed that the "double taxation" on individual and corporate savings must be significantly reduced, if not eliminated. Even assuming that U.S. consumption is reduced, Dr. Makin and Dr. Hatsopoulos indicated that unless U.S. productivity surpasses the rates achieved in Japan and major competitor countries, U.S. workers will have to accept lower real wages and a declining standard of living.

Increasing the productivity of labor is essential, everyone agreed. But as Dr. McLennan noted, this requires significant improvements in the educational and skills levels of both manufacturing and service sector workers and, as such, can only result in major gains over the long term. Other suggestions call for increasing the productivity of capital, which entails both increasing capital formation through increased savings, and making appropriate investment decisions.

Specific priorities should include increasing the level and quality of investment in "tangible" (plant and equipment) and "intangible" capital (civilian R & D, product quality, market development, etc.). However, Dr. Hatsopoulos, as well as Dr. Makin and Dr. McLennan, discounted the notion that industrial targeting or an industrial policy should be employed in the United States.

In a different vein, Dr. Robert Green stressed that the United States can become more export competitive only if U.S. companies become more export-oriented and stop concentrating solely on the domestic market. He added that the government does have a necessary and legitimate role to play in this process, primarily through the more active collection and dissemination of foreign market information and other forms of export promotion.

PANEL III: Improving Competitiveness of U.S. Business Through its Own Efforts

The third panel was chaired by Michael R. Czinkota from the International Trade Administration. Panelists included: Jeffrey Arpan from the University of South Carolina; Lansing Felker from the U.S. Department of Commerce; Bernard LaLonde from Ohio State University; William Lilley III from the American Business Conference; and John Ryans from Kent State University.

This panel focussed on the issue of competitiveness from the perspective of individual firms. A recurring theme throughout the afternoon session stressed the belief that, at a micro-level, the U.S. government's ability to influence international competitiveness was fairly limited; responsibility for improving the productivity and efficiency of American firms in domestic and foreign markets rested primarily with business management.

In order to determine the kinds of business practices essential to enhancing competitiveness in U.S. industries, most of the panelists conducted detailed surveys of American firms already successfully competing in the international marketplace. Although the companies surveyed varied in terms of economies of scale, capital intensity, and product line, the panelists' findings were remarkably similar. Most of these firms shared many common characteristics which, according to the panelists, may offer valuable insights to other firms seeking to become internationally competitive.

Perhaps the most striking resemblance among successful companies centered on a favorable corporate culture and attitude towards international transactions. American firms that perform well in foreign markets generally view exports as a vital component of their business, not just a convenient outlet for excess capacity. Most of these companies are committed to exporting even when external factors, such as the sustained dollar appreciation of the early 1980's, make this task more difficult. In short, these firms tend to adopt a global orientation atypical of many American firms, in addition to an awareness that competing in foreign markets will also help maintain a competitive edge at home.

Another similarity among the competitive American firms studied is the emphasis they place on developing a flexible product line which can cater to specific customer needs, thereby fostering a cooperative working relationship with business clients. In the words of Dr. Arpan: "The most successful firms tailored their product or service to the customer preferences and the consumption behavior, rather than making the products that were simply the most expedient to produce". Dr. Ryans

added that customers generally view delivery, quality, and product superiority as much more important than price considerations in determining a company's competitiveness.

Clearly, the need to change corporate philosophies and mindsets enjoyed high priority among all panelists. A strong consensus developed that too many firms were overly concerned with quarter-to-quarter profit earnings at the expense of longer term market share strategies. This stands in stark contrast to the recent practices of Japanese firms who have absorbed huge profit reductions in order to maintain their foothold in American markets. In addition, Dr. Arpan stated that the Japanese exporting success in this country is partly due to their commitment to nurture "stable secure relationships" with buyers and sellers, as opposed to a common American practice of developing impersonal short-term business relations which emphasize the bottom line. The panelists agreed that a more forward looking approach is critical in the exporting field where it may take up to 4 or 5 years before companies begin to reap the full benefits of competing in foreign markets.

The panelists concurred on the importance of encouraging greater cooperation in U.S. industries by expanding joint ventures, increasing the use of shared R & D consortia, and emulating certain practices of companies on the cutting edge of their respective fields. This latter point, more commonly referred to as cross-fertilization, was amplified by Dr. LaLonde, who believes it may offer the best vehicle for spreading valuable export knowledge because: "companies find other companies the most believable source of information". However, this cooperative approach still faces considerable resistance, as many American firms are still conditioned to the "go it alone" attitudes of the 1960s and 70s.

Revitalizing international education efforts in this country was also strongly advocated by most of the panelists. In their view, the present system fails to provide students with sufficient linguistic skills, international business expertise, or even an adequate awareness of how international business trends affect consumption patterns and standards of living. Dr. Lilley warned that companies are moving assets and plants abroad so they can employ higher quality human capital in terms of technical and linguistic skills.

Finally, Lansing Felker stressed the importance of bridging the gap between technical innovation and the production line. Too often, faulty or inadequate communication between scientists and engineers on the one hand, and business planners on the other, has resulted in poor strategic planning and needless waste of resources. Full and timely exchange of information between these two branches is especially critical at a time when the pace of technological innovation has greatly accelerated, while a product's life cycle has diminished dramatically.

PROCEEDINGS

Opening Remarks by Dr. Czinkota and Mr. Cobb

DR. CZINKOTA: Good morning. My name is Michael Czinkota. I'm the Deputy Assistant Secretary for Trade Information and Analysis and I welcome all of you to our conference today on "Improving U.S. Competitiveness." The conference is sponsored by the Trade Development unit of the International Trade Administration, and it focuses on an issue which is of crucial interest to us.

As you know, dramatized over the past few years by the rapid and disturbing growth of the U.S. trade deficit, competitiveness has become an issue which has moved to the forefront of national concern. In the international context, of course, it is a major issue for us here at the International Trade Administration. But U.S. international competitiveness is also a matter with great long-term economic and national security implications and is, therefore, of great importance not only to economists, business executives, government officials and policymakers, but to all Americans.

Particularly given these long-term implications, we in government need to try to do everything possible to ensure that what we are doing is right, and we are going to see the effects of our actions in all these years, sometimes decades down the road.

To discuss the issue of competitiveness, we have gathered a group of very distinguished experts. Over the course of the day, they will examine the issue in three separate panels, one of them focusing on definition and measurement, the second one focusing on macro issues, and the third one on micro issues.

The panelists are drawn from government, academe and the business community. The spirit of this conference is bipartisan in nature. We have people on our panels who have some great expertise and often some very strong points of view.

But they are not here today with axes to grind, but rather to probe, discuss, evaluate and improve our understanding of what competitiveness is all about and to offer their thoughts on how the United States can improve its trade and overall economic performance.

I'm very grateful for the panelists who have come today to share their time and expertise with us and for doing so gratis. All of the panelists have come at their own expense and without the customary honoraria. There is a reason, of course, for our approach to the conference.

We definitely wanted to gladden the hearts of those who see competitiveness closely interlinked with the large Federal budget deficit, and we definitely did not want to add to that deficit in this conference. Our only concession to amenities is to offer coffee and doughnuts.

I'm also very grateful to you in the audience for coming here today. I realize that you are not only individuals who are interested in competitiveness, but many of you have also considerable expertise in the area. I, therefore, am quite hopeful that our conference format--which for each panel permits about 45 minutes of questions and answers--will be made use of by you and that you will not be too shy to step up to the microphones and ask questions and participate in debate. As you can see, there are floor microphones posted so that you can avail yourself of them.

What I'd like to do next is to introduce our Assistant Secretary of Trade Development, Charles Cobb. Mr. Cobb was confirmed by the U.S. Senate quite recently--on July 30, 1987. Prior to his appointment as Assistant Secretary for Trade Development, he has been in senior management positions with three major multibillion dollar corporations. Among other things, he has been the Chairman and Chief Executive Officer of Arvida/Disney Corporation and has served on the Board of Directors and on the Executive Committee of the Walt Disney Company.

Before Arvida/Disney, Mr.Cobb served in a number of positions at Penn Central, where he rose from subsidiary President to Chief Operating Officer in charge of 40 businesses and over 40,000 employees. Prior to that, he was a subsidiary President and Group Executive of Kaiser Aluminum and Chemical Corporation.

Mr. Cobb graduated from Stanford University with a MBA and a BA in economics, and in 1960 he served as an alternate to the U.S. Olympic track team. In the short time that we have had him here in Trade Development, I think the latter attribute, together with his business acumen, has been quite visible. He is teaching us who work in Trade Development how to run faster, how to run better and, hopefully, how to run smarter.

His main emphasis in our programs rests with international marketing, export promotion, and with ensuring that our firms provide their customers with what the customers need. Another emphasis, quite unusual for government, is to look at the return on investment we're giving to the taxpayer for the money the taxpayer is spending on our trade development activities.

So, ladies and gentlemen, Mr. Cobb.

MR. COBB: Thank you, Mike. Good morning, everybody. I'd also like to welcome you and our distinguished panelists, as we try to make progress on what we need to do to make our businesses more competitive.

As you all know, the President has submitted a number of recommendations on this issue in the Presidential Initiative on Competitiveness. It's about a thousand page document that I'm sure all of you have read as the official position of the Administration on this issue.

What we are planning and attempting to do here in Trade Information and Analysis, the group that Michael Czinkota heads, is to continue to refine our work product and our analysis on what we need to do to make our industry sectors more competitive, and to update recommendations to the President and Congress on what we need to do as a nation to be more competitive. This meeting today is an important part of that process.

As with any kind of debate, it's good to turn to outside consultants to ask for their input. We are also delighted to have so many of our colleagues within the Administration join us today as part of this dialogue, because your views are also important.

What I might share with you is another outreach effort that we have underway, and that's our work with the President's Export Council. One of the things that they have done, which I find very interesting, is to prepare a huge matrix or a master list of every proposal that's been offered on U.S. competitiveness and every organization that has done a study on U.S. competitiveness.

These include the President's Initiative on Competitiveness, the Young Commission on Competitiveness, the Business Roundtable, the Chamber of Commerce and other business organizations that have prepared comprehensive reports. They then have listed where each of these organizations have come out on the issue. From my point of view, it's the most comprehensive statement of where the leaders of America and the people that have given this subject considerable thought come out on these issues. One of the things that I hope we accomplish today is to add another entry to that column of distinguished views on competitiveness.

Well, to conclude, I want to thank you all again for being with us today in this important dialogue. Thanks again to the members from the other parts of the Administration and, especially, to our panelists. We look forward to a productive day, and I look forward to participating with all of you in summarizing our conclusions at the end of the day.

Panel One: Definition and Measurement of Competitiveness

Chairman:

Lew Cramer
Deputy Assistant Secretary
for Science and Electronics
International Trade Administration
U.S. Department of Commerce

Panelists:

Allen J. Lenz, Ph.D.
Director
Office of Trade and Investment Analysis
International Trade Administration
U.S. Department of Commerce

Robert Z. Lawrence, Ph.D.
Senior Fellow in Economics
The Brookings Institution
Washington, D.C.

William Niskanen, Ph.D.
Chairman
The Cato Institute
Washington, D.C.

Gaylord Worden, Ph.D.
Chief
Industry Division
Bureau of the Census
Washington, D.C.

MR. CRAMER: Good morning. I'm Lew Cramer, the Deputy Assistant Secretary for Science and Electronics in the International Trade Administration. As one of the persons responsible for much of our high-tech trade, I feel a particular kinship to our panelists today as we talk about competitiveness. As Dr. Czinkota and Assistant Secretary Cobb have mentioned, it is a complex subject with many complex meanings.

Fortunately, I won't have to give the answers, but I think we have some experts that can go a long way towards doing that. We are hopeful that after we discuss the definition and measurement of competitiveness, we will at least be aware that there are more precise ways of defining and measuring competitiveness than simply citing the latest trade deficit figures.

Our format this morning will be that each of our panelists will speak for 15 or 20 minutes in their individual presentations. At the end of that, they will have the opportunity to discuss the various conclusions among themselves for 15 minutes or so, and then we will open it up for questions from the audience, allowing some good interaction and specific questions from you.

Let me begin by introducing Dr. Allen Lenz, who will be our first speaker. He is the Director of the Office of Trade and Investment Analysis in the International Trade Administration. On a personal note, as one of the younger members in the International Trade Administration, I've personally benefitted from his guidance and counsel on some issues that I worked on, and I appreciate that.

Dr. Lenz served in the first part of the Reagan Administration as staff director for the National Security Council. Previously, he was Director of the Office of East-West Policy and Planning in the International Trade Administration from 1974 to 1981. From 1971 to 1974, he was Executive Secretary of the Council on International Economic Policy, which was a White House policy coordination group. Dr. Lenz holds his BS from the Wharton School of the University of Pennsylvania, his MBA from the University of Colorado, and had the good sense to get his Ph.D. from the Stanford Graduate School of Business.

Please join me in welcoming Dr. Allen Lenz.

DR. LENZ: Thank you very much, Lew, and good morning, ladies and gentlemen. It's a pleasure to be here and to discuss a very important subject. It's often said that everyone talks about the weather, but no one does anything about it. It seems to me that U.S. international competitiveness is a different matter.

Not only is everyone talking about it, but there are a great many people that are trying to do something about it. But it does seem to me that while a lot of people are talking about international competitiveness and a lot of people are trying to do something about it, there is a remarkable lack of definition and agreement as to what we mean by "competitiveness."

Indeed, there is no generally accepted definition of just what international competitiveness is. As a result, some of our efforts may be equally as ineffective as talk about the weather. My task this morning is to provide a framework for today's discussion of U.S. international competitiveness, and since there is no agreed upon or widely accepted definition of competitiveness, what follows is my own personal interpretation.

Now, I suspect that to many people, competitiveness is associated with trade balances. Large U.S. trade deficits mean the U.S. isn't competitive, and enlarging trade deficits mean competitiveness is declining.

Now, that's a perfectly reasonable interpretation and it is certainly a common one. But it seems to me it is not really very useful for policy purposes, because trade balances don't, in the final analysis, really indicate much about competitiveness, not in a useful sense or the way we intuitively think about it.

For example, in 1986, Botswana and Zaire both ran trade surpluses. Yet, I doubt many of us think of either as a really competitive economy. Another thing, over the longer term, every country, even the poorest country, and the most mismanaged economy must balance its trade.

Again, the trade balance is not a very good measure of a country's competitiveness. Now, in fact, this morning I am going to argue that the U.S. trade deficits are essentially a separate problem from that of U.S. international competitiveness. I see the trade deficit as a transitory problem, while competitiveness is a challenge that will endure and, indeed, will intensify.

Moreover, I will argue that it is important to recognize that they are essentially separate problems because these two matters require essentially different policy prescriptions.

TWO KEY SEPARABLE U.S. TRADE ISSUES

TRADE DEFICITS

--A TRANSITORY PROBLEM

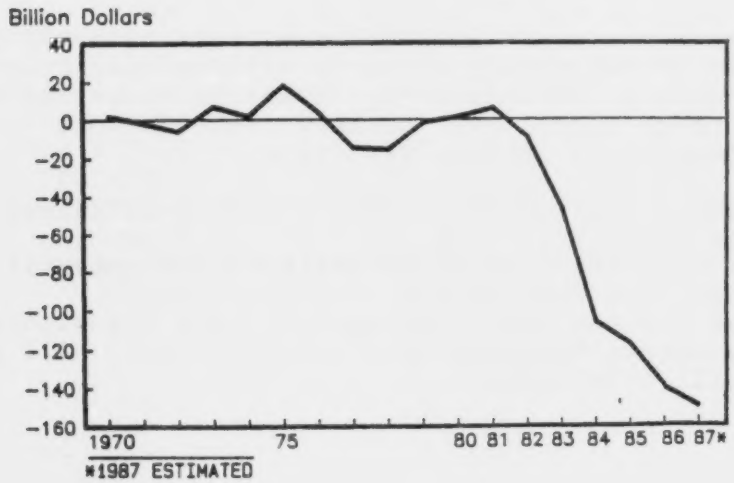
INTERNATIONAL "COMPETITIVENESS"

--AN ENDURING CHALLENGE

REQUIRING ESSENTIALLY DIFFERENT POLICY PRESCRIPTIONS

Now, let's examine each of the two issues separately beginning with the trade deficits and why they are important. It is no secret to you that in recent years the United States has recorded very large current account deficits in exchanges of goods and services with the rest of the world. The current account, which you see depicted here, measures the total of U.S. goods and services transactions with the rest of the world.

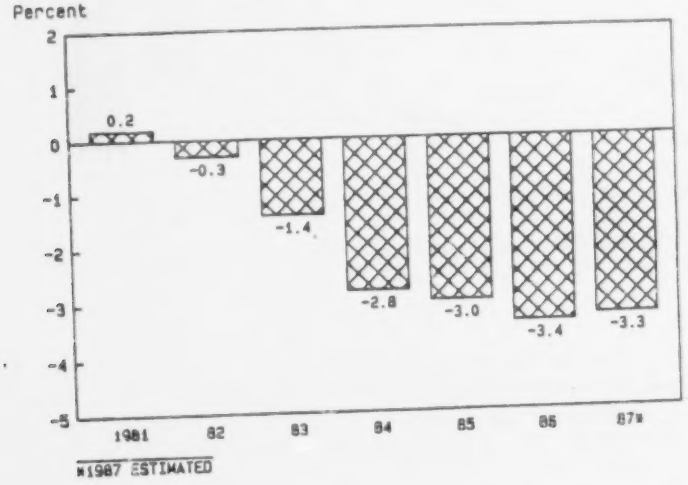
U.S. CURRENT ACCOUNT BALANCES, 1970-87*



The U.S. current account, as you can see, was close to balance--some small surpluses, some small deficits--until 1983, when deficits became very large. In 1986, the deficit was $140 billion and based on first-half performance, the 1987 deficit may enlarge marginally. Now, a current account surplus means a country is producing more than it is consuming, exporting the difference and lending abroad.

On the other hand, a current account deficit--which, of course, is the U.S. situation--means a nation is producing less than it is consuming, importing the difference and borrowing abroad. Recent U.S. current account deficits have been quite large and so has the resulting debt growth, relative to the size of the U.S. economy as measured by the Gross National Product.

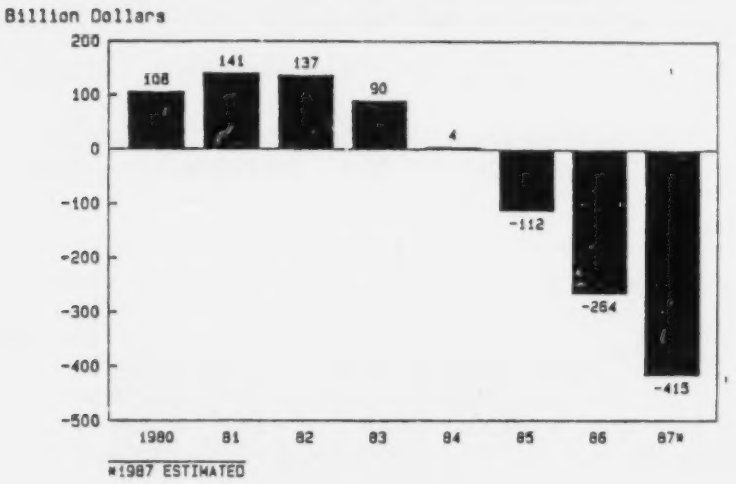
RATIOS OF U.S. CURRENT ACCOUNT
BALANCES TO GNP, 1981-87*



As you can see, the 1984, 1985 and 1986 deficits ranged around 3 percent of Gross National Product and 1987 will be in the same range. In essence, this means that in recent years the United States has annually consumed about 3 percent more in goods and services than it has actually produced, with net imports and net borrowing from abroad making up the difference.

As a result of the international borrowing represented by these recent current account deficits, the international investor position of the United States has changed markedly. Looking back at 1982, you can see a creditor position of about $137 billion. The international investor position is the net of U.S.-held assets abroad versus foreign-held U.S. assets--our U.S. obligations to foreign holders.

U.S. INTERNATIONAL INVESTMENT POSITION, 1980-87*



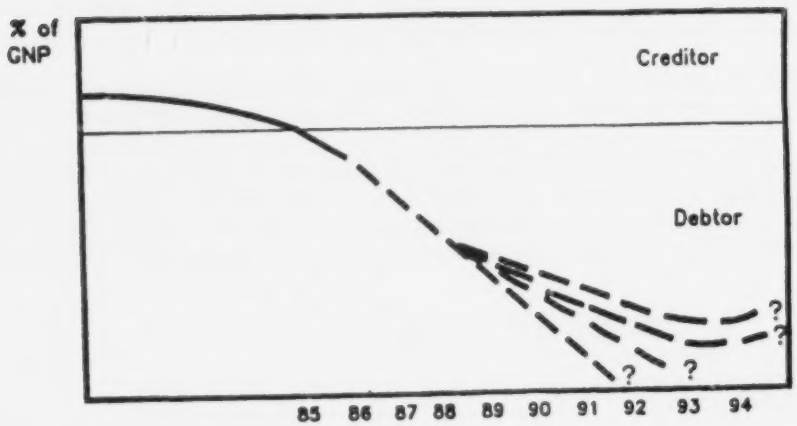
Thus, the large merchandise trade and current account deficits of recent years rapidly changed the net U.S. international investor position from a positive position of $137 billion in 1982 to a negative position of about $264 billion at end-1986.

This net negative U.S. international position is not an immediate problem. The U.S. debtor position is small relative to GNP, perhaps about 6 percent, compared to a debt to GNP position of something like 40 percent for Brazil. But the rapidity of recent changes in the U.S. international investor position and the long term implications of continued debt build-up relative to gross national product are a matter of concern.

The point is, however, that U.S. borrowing abroad at rates that enlarge the negative international position relative to GNP cannot and will not continue indefinitely. Things will change.

Ultimately, U.S. trade and current account balances must improve to levels that markedly slow or halt U.S. international debt growth. Steps to reduce government spending and diminish the U.S. requirements for imported capital and other steps to narrow U.S. deficits are now in progress.

U.S. NET INTERNATIONAL INVESTMENT POSITION
(Percent of GNP)



But even if U.S. actions did not narrow U.S. trade and current account deficits, the deficits would ultimately narrow. They would narrow because no nation--not even the United States--can borrow forever at rates that exceed growth in gross national product. The international economic system in time would force changes and adjustments that would narrow the U.S. current account deficits and the resulting borrowing abroad.

These changes could occur in a variety of ways: changes in international exchange rates, relative economic growth rates, international inflation rates and price and wage levels. But, in any event, the U.S. trade and current account deficits and U.S. borrowing abroad will ultimately shrink, restoring the current account balance to sustainable levels and minimizing or halting borrowing abroad.

To summarize then, large U.S. trade deficits are a very real and a very important U.S. problem for several reasons. These include the fact that large deficits are seen as hurting U.S. employment. In view of the stellar U.S. job creation record, the actual effects of trade deficits on U.S. employment are, in fact, arguable. But whatever the facts, the reality is that large trade deficits <u>are</u> <u>seen</u> as creating unemployment and continuing large trade deficits could, therefore, lead to U.S. trade restricting actions. In turn, U.S. actions could lead to foreign retaliation and possibly to trade wars.

In addition, the large U.S. trade deficits are producing a large international debt that will have to be serviced. Clearly then, large U.S. trade deficits are a very important problem, but nevertheless, a transitory problem. It may take several years, but sooner or later, large trade deficits will disappear or significantly narrow.

Turning then to international competitiveness, what is it, how is it measured, and what determines "competitiveness?"

Trade deficits, it seems to me, and their consequences are quite well understood. But it also seems to me there is a great deal of confusion about international competitiveness. Meanings depend on the observer's perspective.

DIFFERENT VIEWS ON INTERNATIONAL COMPETITIVENESS

- o INDIVIDUAL FIRM
- o INDUSTRY/SECTOR
- o NATION

From the perspective of the individual firm, international competitiveness is probably its current and projected ability to sell and profit in international markets, or at a minimum, its ability to compete successfully with foreign firms in the U.S. market. In other words, its ability to make a buck, its ability to be profitable.

Individual industries probably see international competitiveness in much the same way. To them, international competitiveness implies a current and expected future ability to compete and prosper in U.S. and international markets.

Given their focus on their own survivability and profitability, from the viewpoint of the individual firm and industries, their competitiveness--as they define it--may be enhanced in various ways, including the right amount of dollar depreciation, by wage cuts to their employees, by overseas sourcing of production and, perhaps, in the individual firm and industry, profitability problems might be taken care of by some form of import restriction. So to serve their own "competitiveness" needs as they see them, individual firms and industries may advocate some of these various actions: exchange rate devaluation, wage cuts, import restrictions, et cetera.

But from a national viewpoint--from the standpoint of the nation as a whole--it is quite a different issue. U.S. international competitiveness has different objectives that cannot be achieved by import restrictions, inordinate degrees of dollar depreciation, by wage cuts, or offshore production.

Here you see the definition of U.S. international competitiveness adopted by the President's Commission on Industrial Competitiveness. It is not a fundamental economic objective of a country to ensure the profitability of individual firms or industries. It is, however, a fundamental national objective to increase total national wealth and living standards for the nation's population as a whole.

U.S. INTERNATIONAL COMPETITIVENESS:

THE DEGREE TO WHICH A NATION CAN, UNDER FREE AND FAIR MARKET CONDITIONS, PRODUCE GOODS AND SERVICES THAT MEET THE TEST OF INTERNATIONAL MARKETS WHILE SIMULTANEOUSLY MAINTAINING AND EXPANDING THE REAL INCOMES OF ITS CITIZENS.

Thus, under this definition of "competitiveness," the United States has to achieve long term cumulative balance in its trade and current accounts on terms of trade at dollar exchange rates and real wage levels that maintain or enhance U.S. living standards. This standard-of-living focus is the key factor in the way in which the President's Commission on

Industrial Competitiveness defined competitiveness. Again, it is important to recognize that a nation's international competitiveness is not measured by its trade balance, and even the poorest nations must in the long run balance their accounts.

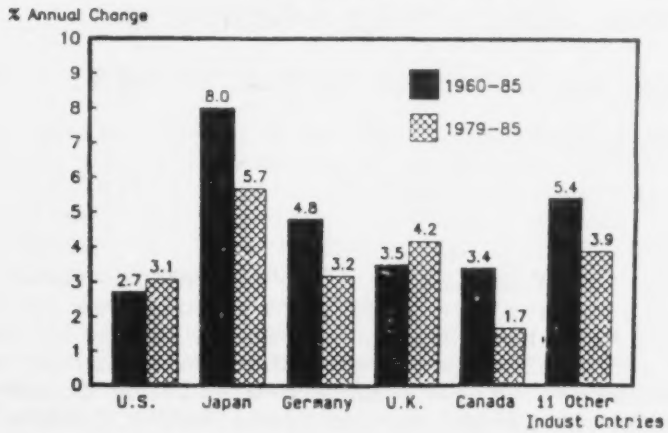
Rather, being competitive means achieving long-term balance concurrent with maintaining or increasing a high standard of living. Thus, shrinking trade deficits by undue reliance on exchange rate depreciation and wage cuts may help trade balances, but these steps put downward pressure on living standards and do not, in themselves, improve national competitiveness as I have defined it.

Defined in the way I have set it out here and the way the President's Commission defines it, international competitiveness is essentially a living standard issue and competitiveness depends fundamentally on U.S. productivity growth rates relative to the rates of major competitors. Material living standards can increase only if individual output or productivity increases. But in an integrated global economy, simply increasing productivity is not enough to maintain or strengthen U.S. international competitiveness.

To maintain or improve competitiveness, productivity growth rates must compare favorably with those of other major trading nations. How can you measure productivity?

There is no single all-encompassing statistic. No statistic tells the whole story, but perhaps rates of increase in manufacturing output per manhour are one useful means of intercountry productivity comparison. Here you see U.S. productivity rates over the 1960 to 1985 period lagged behind those of our major industrial competitors. The rates for 1979 through 1985 look considerably better, but we still lag behind most major competitors.

ANNUAL MANUFACTURING PRODUCTIVITY INCREASES, 1960–85



One can get some spurts in productivity growth quite rapidly through industrial restructuring, a process that we've certainly been going through recently. Quick gains can come from trimming excess personnel, by more effective use of existing resources, by cutting non-essential programs, et cetera.

These kinds of changes and productivity gains are often forced by foreign competition. But sustained long term increases in productivity require consistent, continuing emphasis on improving the quality and utilization of stocks of human and physical capital as well as maintaining effective trade policies.

The graphic lists some keys to a nation's productivity growth. As I said, a nation's productivity growth is determined fundamentally by the rates of growth in the stock and quality of its human and physical capital and how those stocks are utilized. Unfortunately, these stocks and their utilization can change only gradually, but long-term trends are strongly influenced by a nation's economic policies.

KEYS TO MEETING THE INTERNATIONAL COMPETITIVENESS CHALLENGE:

- HIGH NATIONAL SAVINGS RATES
- STRONG CAPITAL FORMATION RATES
- EXPANDING RESEARCH AND DEVELOPMENT
- CONTINUING HUMAN RESOURCE DEVELOPMENT
- EFFECTIVE TRADE POLICIES

What do we need to enhance the growth of productivity and competitiveness? These factors are the fundamentals as described by the President's Commission on Industrial Competitiveness. A nation, to be competitive, needs a national savings rate that is adequate to finance a high rate of investment, which is directed at increasing national productivity and developing and producing new technologies and products.

Also necessary is continued enhancement of the educational levels and skill levels of the nation's labor force. Finally, effective trade policies are essential to ensure an opportunity to compete in international markets. No matter how good a firm's products may be, it doesn't do them much good if foreign markets are closed.

Now, balanced trade can be achieved without strong performance in these factors. Balanced trade can be achieved via currency depreciations and wage cuts and some other devices, but international competitiveness cannot be achieved without consistently strong performance in these fundamentals.

Note that the first four factors shown all have--unfortunately--very long gestation periods before payoff. An investment or change made today may not pay off for many years, and then perhaps only imperceptibly. This long gestation period, perhaps, increases the temptation to focus on the last item, trade policy, in the hope for a quick payoff.

These are some key programs in the trade policy area, and again, clearly effective trade policies are a necessary condition to competitiveness, but they are not a sufficient condition to ensure national competitiveness.

SOME IMPORTANT TRADE POLICY AREAS:

- GATT NEGOTIATIONS
- OTHER MARKET ACCESS INITIATIVES
- ANTI-DUMPING AND COUNTERVAILING ACTIONS
- IMPROVED EXPORT OPPORTUNITY AWARENESS
- REMOVE/MINIMIZE EXPORT DISINCENTIVES

Trade balances, as I have noted, will fluctuate. Deficits are a transitory problem, but international competitiveness is not a temporary problem. It's an unending contest. For a high-wage country like the United States, balancing trade while maintaining and increasing living standards will, it seems to me, become an ever more difficult task, as more and more nations acquire and increase production and marketing skills.

THE ENDURING INTERNATIONAL COMPETITIVENESS QUESTION--

CAN THE U.S. MAINTAIN A PRODUCTIVITY EDGE IN:

- TECHNOLOGY
- MANUFACTURING
- QUALITY
- MARKETING

SUFFICIENT TO MAINTAIN/IMPROVE U.S. REAL INCOMES

Therefore, it seems to me the critical question for the future is

> "Given the rapid continuing increases in foreign capabilities, often in nations with significantly lower wage levels than those of the United States, can the United States maintain competitive advantages sufficient to balance its trade, including a large volume of imports, at exchange rates and wage levels that maintain or improve U.S. real incomes and living standards?"

U.S. INTERNATIONAL COMPETITIVENESS

- SETS NATIONAL LIVING STANDARDS
- FUNDAMENTALLY DETERMINED BY PRODUCTIVITY GROWTH RATES
- AN ENDURING CHALLENGE

So to summarize, as I see it, international competitiveness is essentially about the policies that determine the terms of trade over the long term and ultimately affect U.S. living standards. International competitiveness is fundamentally determined by U.S. productivity growth rates, compared to those of our competitors. Viewed in this light, international competitiveness is a challenge that will not go away and, indeed, will probably become even more difficult.

Thus, as I see it, there are two major U.S. trade-related problems. The first is the trade deficit. It's a difficult problem that requires prompt action. Among other reasons, we need to shrink the trade deficit to avoid trade disrupting actions and to minimize the growth of our international debt, but we also have to continue to focus on the enduring challenge of international competitiveness, a focus that will need to continue beyond the time of resolution of the trade deficits. International competitiveness is important to long-term U.S. living standards and to our ability to maintain strong global economic and political leadership.

TWO MAJOR U.S. TRADE-RELATED PROBLEMS:

TRANSITORY PROBLEM--REDUCE THE TRADE DEFICIT TO:

- -AVOID PROTECTIONIST ACTIONS
- -MINIMIZE GROWTH OF INTERNATIONAL DEBT

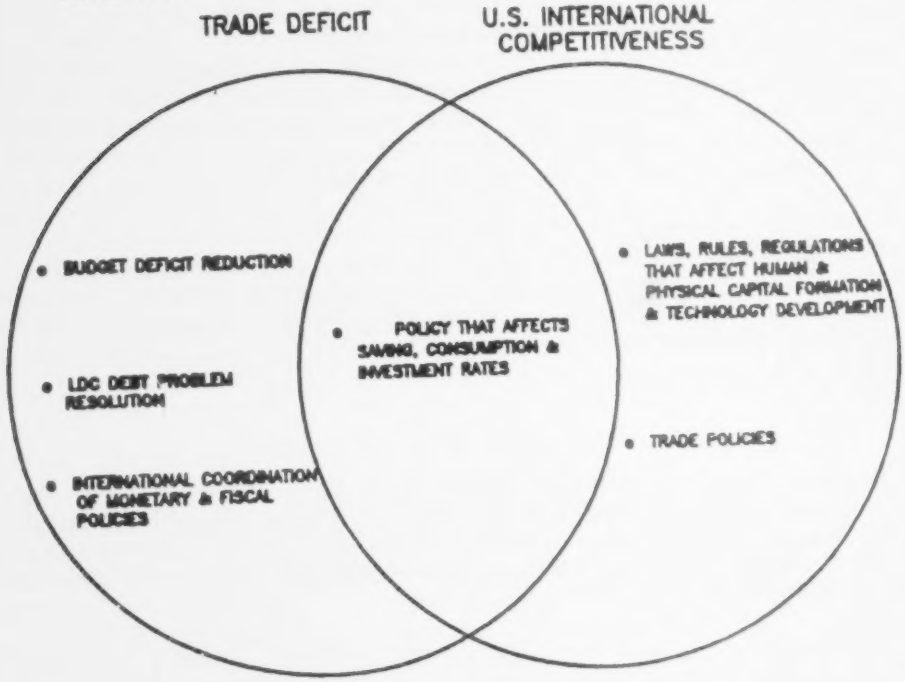
ENDURING CHALLENGE--MAINTAIN/INCREASE U.S. INTERNATIONAL COMPETITIVENESS TO:

- -MAINTAIN/INCREASE U.S. LIVING STANDARDS
- -MAINTAIN STRONG U.S. ECONOMIC-POLITICAL LEADERSHIP

These two key trade problems, large trade deficits and international competitiveness, require essentially different policy treatments. This, of course, is the key reason for trying to distinguish between the two.

In international economics, as in most of the rest of life, there are usually complex and far-reaching effects when you make a change. Everything, in a way, is connected to everything else and oversimplifications, therefore, can be misleading. But it does seem to me that it is, nevertheless, useful to separate the trade deficit and international competitiveness problems and the policy actions that relate primarily to each.

RELEVANT POLICY TOOLS FOR INTERNATIONAL TRADE


TRADE DEFICIT
U.S. INTERNATIONAL COMPETITIVENESS
• BUDGET DEFICIT REDUCTION
• LDC DEBT PROBLEM RESOLUTION
• INTERNATIONAL COORDINATION OF MONETARY & FISCAL POLICIES
• POLICY THAT AFFECTS SAVING, CONSUMPTION & INVESTMENT RATES
• LAWS, RULES, REGULATIONS THAT AFFECT HUMAN & PHYSICAL CAPITAL FORMATION & TECHNOLOGY DEVELOPMENT
• TRADE POLICIES

In the lefthand circle of the graphic are those items which, it seems to me, need to be worked on to take care of the trade deficit problem: reducing the Federal budget deficit; a solution to the LDC debt problem; and improved international coordination of monetary and fiscal policies.

On the far right are actions that relate to competitiveness--essentially those actions that increase productivity growth--via increased capital formation. It's the laws, rules, regulations that affect human and physical capital formation and technology development. Appropriate trade policies are, of course, also important.

But in the center, important to both of these problems, are policy actions that affect both trade deficit and competitiveness. These include tax policies that affect savings and investment and consumption rates.

And I'm sure I've more than used up my time. Thank you very much.

MR. CRAMER: Thank you very much, Allen, for that insightful beginning in setting the stage for our ongoing discussions today.

We are now pleased to introduce Dr. Robert Z. Lawrence, who is currently a Senior Fellow in Economic Studies at the Brookings Institution, where he specializes in international economic and trade issues. Formerly Dr. Lawrence was a professorial lecturer at the School of Advanced International Studies at Johns Hopkins University and a teaching assistant at Yale University, where he received his Ph.D. in economics. Among Dr. Lawrence's many books and articles on competitiveness and related issues are Structural Change, Adjustment, and International Competitiveness; Saving Free Trade: A Pragmatic Approach; and Can America Compete? We're delighted to have Dr. Robert Z. Lawrence address us now.

DR. LAWRENCE: Thank you very much. As Alice in Wonderland reminded us, words could mean anything we want them to, and competitiveness is no exception. To understand economic activity, it is very tempting to use metaphor, and economic commentators have a tendency to view economic activity like a sporting contest.

The use of the word competitiveness in the analogy of a level playing field and in talking about the rules of the game that we hear so often reflects this habit. But the problem is that economic activity differs from sporting competition in various noteworthy respects.

First, economic activity is not a zero sum game. All the participants can be winners. In fact, the search for solutions in which all can be made better off is a fundamental goal of economic behavior. Economic transactions are voluntary, and parties will only make them if they are convinced their welfare is improved.

The second problem with the analogy is that when we talk about competitiveness, it is not clear exactly who the players are. As Allen Lenz indicated, we can view this thing from the standpoint of firms, industries and the nation. When we look at it from the standpoint of the nation, we've got to realize that the nation exists both as a group of producers and, as we often forget, as a group of consumers.

If you look at the international trading rules, for instance, it's very clear that they have a very narrow perspective, because, in fact, they are written from the standpoint of the producers. Take, for instance, the argument that governments ought not to subsidize, because such competition is unfair. Unfair to whom?

Obviously, it is unfair to firms competing against the firms who receive subsidies, but what about consumers? Consumers clearly gain when a foreign government subsidizes such activities. So you see it all depends on how you view the players in the game. It is striking that economists adopt a perspective that looks at international trade essentially from the standpoint of consumers. The object of the game is to maximize utility. The producers simply mediate between factors of production which are employed to get a certain amount of utility.

On the other hand, when the political system looks at it, it tends to look primarily from the standpoint of producers. So we're not quite sure then about this game. It is not a zero sum game. The players are a complex set of actors and we get different answers depending on our perspective. As a result, it is very, very hard to keep score. In fact, I don't think there is any one single meaningful measure.

I think it was Ivan Boesky who said that you could look at life as a game where people start off with a little difference in their endowments. They accumulate money, and whoever has the most amount of money at the end wins.

That is essentially a mercantilist view of the world. A bigger trade surplus is not necessarily better. Some nations appear to be motivated by that criterion, but I think we realize that simply accumulating resources or wealth is not an objective that we'd like to have our nation strive for.

Rather, we'd like to be able to utilize the resources in a way that can give us the most satisfaction. In fact, when I hear people talking about competitiveness, I think they have three very different concepts in mind, and in the rest of my talk, I'd like to distinguish between those three.

Although they are often mingled, I think they are distinct. And, indeed, I would suggest that Allen Lenz this morning mingled two of those concepts.

First, when we say, is the United States competitive?, what we really ask is, how does the United States compare? How do we compare is the first concept of competitiveness.

Second, we can ask how well are we performing in international trade? And third, we can ask the question that I regard as the most important: Are we doing the best we can? Are we efficient? So we have three ideas here, comparison, performance in trade, and efficiency, and they are very, very distinct.

Using the first concept, let's consider desirable attributes and see how the United States stacks up against other countries. The most common we might use would be productivity. Take our productivity levels (how much a worker produces in an hour in the United States economy) and compare them with what a worker produces in other economies and see how we stack up. What's interesting is that if we look at absolute productivity levels, we find out that the United States remains number one.

Take the consumption levels that Americans have and compare them with consumption levels in other countries. That's another way to see how we stack up. How do we compare? Again, what's interesting is that, among major industrial countries, the United States remains number one.

We can also monitor the rates of growth of those two variables. Here, we do less well, in the sense that other nations have been converging to our levels of productivity and our living standard. But I want to stress here that how we compare, how we stack up in productivity growth, does not necessarily tell us anything about how well we will do in international trade. And that is where I would differ somewhat from the presentation that Allen Lenz gave us.

Indeed, there is nothing in the President's definition of international competitiveness that explicitly brings in the question of how do we compare. There is no reason why we could not enjoy growing, sustained living standards, a trade deficit or surplus or whatever we would like without declining terms of trade and still be falling behind other countries in terms of living standards.

If we think about it, there is no necessary connection between a country's absolute level of productivity and its trade balance. Look at the United States, for instance. We were clearly preeminent in the global economy in the 1950's and '60's. American living standards were easily twice as large as those in Europe. They were eight times as large as those in Japan. We had no inevitable tendency towards surplus. There is no necessary connection between productivity growth and performance in international trade and I think it is important to remember that. Of course, one's productivity growth can influence one's performance in international trade, but there are other outcomes as well.

If higher productivity is matched by an increase in wages and an increase in profits, there is no reason why that country's prices should decline relative to that of its trading partners.

So I'd like to lend an air of confusion to this discussion by pointing out that there is no necessary connection between how you compare and how you'll do in trade. It may be important to strive for higher productivity growth, but it won't automatically lead to better trade performance.

The same error is actually made in the reverse, when people argue that lower wages determine that a country will succeed in international trade. They argue that the U.S. cannot compete with low wage countries. How can the United States, paying workers $12 an hour, compete with Korea if they pay their workers less than two?

If they have access to similar technologies and capital, the argument concludes that the U.S. cannot compete. That's probably true, but the point is the reason that wages are low in Korea on average is that they have lower levels of productivity and less capital. Indeed, when developing countries obtain our levels of technology and our capital, we'll find, lo and behold, that their wages are no longer low.

That's what we saw happen in Japan. That's what we saw happen in Europe. The average wage level in a country is determined by its average productivity level, and wages are low in developing countries precisely because they have lower productivity. Countries which pay high wages can compete with countries which pay low wages, because of superior productivity.

Another aspect of how we compare is the question of who is number one. Economists find this a very peculiar way of looking at things, because, it's second nature for an economist to think that any policy which makes someone better off in absolute terms is desirable. If free trade will raise Japanese living standards by 30 percent and American living standards by 5 percent, an economist will support that policy.

Political scientists and others may not support it, because from their standpoint relative incomes and buying power matter, because they affect power. We often talk about Britain's decline in the late 19th century, but we certainly don't mean that Britain's absolute living standards were declining. Indeed, Britain was rather prosperous during this period, certainly by historical standards.

The decline of Britain, of course, was relative and so the question of being number one is included in the concept of competitiveness. In this respect, competitiveness more closely resembles a contest, but it assumes a different perspective from that of economists. This is the origin of a lot of differences in opinion about policies.

So the first kind of concept is how we compare. The second concept that I'd like to talk about is trade performance. Here I think Allen Lenz did a very good job of indicating that trade balances should not be seen as a score. Far more important, in fact, are the reasons behind those trade balances.

A current account with a trade balance really tells you more about a country's spending patterns than about the attractiveness of its goods in world markets. A country can have a deficit even if its productivity growth exceeds that of its neighbors, if its investment opportunities are greater than those of its neighbors. Indeed, the vibrant U.S. economy in the 19th Century had deficits and declining Britain had massive surpluses in its current account. I like to think of the current account as analogous to the household.

Think about each of your current accounts. As a person goes through life, their trade balance looks rather different. Young people, naturally, run deficits. Young people have many savings opportunities. They are being educated. They are investing in their future. They, therefore, get money by gifts or sometimes by student loans and they gradually build up their capital. They set up a household and borrow even more to accumulate their household assets. Then they go through middle age and tend to accumulate surpluses. They retire then, and move back into deficit. You wouldn't want to judge whether that is good or bad. In fact, it's a rational allocation of one's spending over one's lifetime.

However, if you happen to see a young person out in the streets not investing or if they are taking student loans, but they are not studying in a way that can ultimately increase their incomes, then you ought to be worried.

Now, I'd submit you can look at nations in a similar way. Developing countries typically have a lot of investment opportunities and very limited savings. That's why typically developing countries run trade deficits. They are borrowing to invest for their future. Middle-aged countries, like the United States until about 1970, typically run large trade surpluses. Then countries tend to become large creditor countries. They have already built up a lot of assets. This is actually where the analogy breaks down a little bit, because even if they go into retirement, death is not an outcome open to the nation.

But nonetheless, the United States is in the retirement phase at the moment. We've decumulated our assets and are now actually borrowing. Borrowing per se is not good or bad. It depends on what you are doing with the money.

Let's examine what the United States has been doing with the money before we judge whether or not this deficit is good or bad. My own view, after looking at the numbers, is that our investment and our private savings have increased by similar dollar amounts. We have used the money we have borrowed primarily to finance a large government deficit. And if we ask whether that deficit is being spent on something that will ease our ability to service it or to pay it back in the future, I don't think we'd get a positive answer.

We spent it primarily on financing consumption and on defense. Unless we are planning a war of conquest, the defense expenditures should be considered more like consumption than investment. Looking at our trade deficit in this way, we view it as a spending or borrowing decision. We can try to appraise whether it is wise or not. It's not a score of how competitive our firms are in international markets.

Others like to look at measures like shares in world trade. Sometimes they can be useful, but they can also be very misleading. Business Week wrote a piece about America being de-industrialized. The basic evidence was the fact that we were losing shares in world markets and we were losing shares in our home market, and that would appear to indicate loss of competitiveness.

It's quite possible for a country to experience declining shares in world markets, declining shares in its home markets, and a massive and growing trade surplus. There is nothing inconsistent in that story. It could also have a very rapidly expanding manufactured sector.

Let me give you an analogy. Suppose Bell invents the semiconductor. In the first few years, the Bell Company is the only company selling semiconductors in the world. Clearly its share of world markets is 100 percent. Its share of the domestic market is 100 percent. Gradually other countries begin to make a few semiconductors. But Bell is still going gung-ho. It sells huge quantities of semiconductors and the market is expanding rapidly. It has a declining share of the world market. It is no longer 100 percent. Some of those other companies are foreign and they sell a few in the United States, so Bell's share of the U.S. marketplace declines. Should we predict the decline of that company? Is it contracting automatically? Not necessarily. It is misleading to look at shares in world trade to see and conclude that the sector involved is necessarily going to contract.

So I think there are lots of misleading aspects to that second desire to find some automatic indicator of how well we are performing in international trade.

My third concept, though, is the one that I feel is the most important. We have to ask ourselves, are we doing the best we can? Are we efficient?

I guess Vince Lombardi was the famous protagonist who stated the American principle that winning is the only thing. But there is a more British concept that says that it doesn't really matter whether you win or lose, it's how you play the game. And I would suggest that, although looking at what others are doing is an important criteria for judging if we are doing the best we can, what we really have to concentrate on is the question of whether we're using American resources and endowments in the most productive fashion possible

That, I would suggest to you, is the most important question, because some policies that work well in other countries may not work here. It may well be true that other countries have some endowments that we don't have.

They may also prefer to save more of their incomes than we do. What if they do? If we are just as efficient as they are, but they have decided they will save more than we do, they put a greater preference on the future than we do, they will ultimately end up with higher incomes than we do.

But by definition, if that is our preference, that is our preference. I think, therefore, that what we have to worry about is doing the best we can. I submit that if you go across the whole spectrum of policies, you find out that simply the answer is, no, we're not. But that is the key question, and I think it is the most relevant concept on which a conference like this should concentrate.

Thank you very much.

MR. CRAMER: Thank you very much, Dr. Lawrence. It only took two speakers to join issues on some points. We look forward to some interesting discussions as a result of that.

Our third speaker is Dr. William Niskanen, who is presently Chairman of the Cato Institute, which is a research and policy analysis organization based here in Washington, D.C. Dr. Niskanen has a very well-balanced career. He previously served as a member of the Council of Economic Advisors from 1981 to 1985 during a period of very interesting economic times. He was director of economics at Ford Motor Company from 1975 to 1980 and also served as Assistant Director of the Office of Management and Budget from 1970 to 1972, also a very interesting time to be in Washington.

Dr. Niskanen received his Bachelors Degree from Harvard and his graduate degrees from the University of Chicago. He's also been a professor of economics at the University of California at Berkeley and Los Angeles.

DR. NISKANEN: Someone once introduced me by saying that Bill Niskanen has the best of both worlds, a Harvard degree and a Chicago education.

The beginning of wisdom is to clarify one's language and concepts. Competitiveness is best measured by the amount of goods or services sold by a specific firm, industry, or nation. The very different concept of productivity, in contrast, is best measured by the amount of goods or services produced per unit of input.

A confusion of these two concepts has enormously confused the contemporary public debate. And the relation between these two concepts is quite complex. A firm or industry may become less competitive because of a decline in productivity, because of an increase in the productivity of other firms or industries, or despite an increase in productivity. The two major sectors of the U.S. economy that experienced the most severe competitiveness problem during the early 1980's, for example, were agriculture and manufacturing, despite a more rapid growth of productivity in these sectors than during the prior post-war years.

The principle of comparative advantage, in addition, should remind us that a nation cannot be competitive in all products or services. A rich nation cannot be competitive in some products, even if the productivity in these industries is higher than in other nations. A poor nation, in turn, can be competitive in some products, even if the productivity in the industries from which they export is less than in other nations.

In any given nation, an increase in productivity in one industry will reduce the competitiveness of other industries. The primary objective of economic policy should be to establish and enforce the rules that promise to make us richer, not the pursuit of futile policies to make us more competitive in all products and services.

Unfortunately, many of the economic policies of recent years have been designed to make some industries more competitive by making the rest of us poorer. Let me illustrate. Any individual or firm has the opportunity to make themselves more competitive by reducing the price of its product or service. In some cases, depending upon the specific demand and cost conditions that they face, a lower price also increases the income of the individual or firm.

But in many cases, of course, a lower price reduces income, and the individual or firm has an incentive to pursue actions to increase their income by measures that reduce the incomes of others. A labor union responsive to a majority rule of its members, for example, has an incentive to increase wage rates or fringe benefits until the interests of the median worker are threatened, even if it reduces the income of those who would otherwise prefer to work in a specific plant, firm, or industry--depending on the level of the bargaining unit.

One should not be surprised, therefore, that the relative growth of employment in the private sector is lowest in the unionized firms and industries. The very success of unions in raising wage rates reduces its proportionate share of the larger labor force and its political base in the larger community.

Similarly, both owners and employees in a specific occupation or industry have an incentive to promote government policies that restrict competition by others. These policies are equivalent to rules that would increase the number of games won by the Redskins by preventing other teams from using their best personnel. Such rules would clearly increase the competitiveness of the Redskins, but reduce the average quality of the game.

These kinds of policies may take the form of occupational licensure, the range of domestic regulations that penalize new firms or technology, immigration controls, or trade restraints. All of these types of policies should be recognized as the result of rent-seeking behavior, measures that increase the income and competitiveness of some groups only by reducing the income and competitiveness of other groups at the expense of reducing the average income of the general population affected by these policies.

The pursuit of these policies, in effect, is a negative sum game. A specific comment is in order about the several trade bills now before Congress. These bills, whether in the form of product-specific trade restraints, such as the textile bill, or the omnibus trade bill now being developed by the conference committee, would increase the competitiveness and income of some groups only by making America poorer.

Moreover, contrary to popular perceptions, these bills would have no effect on the total U.S. trade deficit. Our political officials refuse to recognize the implications of the unavoidable accounting identity that the total trade deficit is equal to the difference between saving by Americans and investment in the United States.

The total trade deficit can only be reduced by increasing private saving, reducing the government deficit, or by reducing domestic investment. The trade bills would affect the product composition of trade, the bilateral balances with specific nations, and would reduce the level of both imports and exports, but would have no effect on the total trade balance.

The President should veto both the textile bill and any trade bill that arises from the conference committee. The Administration is not immune to this same confusion or similar criticism. The several measures that have led to the substantial decline in the foreign exchange value of the dollar since February, 1985, should also be recognized as measures that make some industries more competitive only by making America poorer.

There should be no illusion about this issue. Any decline in the foreign exchange value of the dollar reduces the purchasing power of a given level of U.S. production. For any given amount of our output, the decline of the dollar has reduced our claim on the world's resources. Anybody who has traveled in Europe or Japan in recent months would testify to that.

The measure that has probably contributed the most to the decline of the dollar was the increase in the effective tax rate on new corporate investment in the 1986 tax legislation. This measure will reduce our trade deficit only by reducing domestic investment and our future income.

The attempt to coordinate monetary policies associated with the Plaza Agreement of September 1985 has also contributed to the decline of the dollar. These measures also make America poor, but in this case will not have much effect on the trade deficit, because the price and income effects of monetary policy operate in different directions.

Monetary stimulus by the United States, for example, can reduce the nominal exchange rate, but increases domestic demand. In other words, the price of foreign goods has gone up, but domestic demand has also gone up, so the price and income effects on imports are offsetting.

Similarly, monetary restraint by other countries also reduces the dollar, but reduces their domestic demand. So the price of dollar goods is lower in their countries, but their domestic demand is lower and one shouldn't again expect much effect on the trade balance.

Monetary policy to reduce the value of the dollar, by either the U.S. or other nations, would have similar effects as trade restraint. Such a policy makes America poor without any effect on the total trade deficit and, in addition, the monetary measures are likely to increase the U.S. inflation rate.

Our consistent objective should be to identify ways to make America richer, not to make some industries more competitive. The level of real per capita net national product is probably the best measure of economic policies, not the trade deficit and not the competitiveness of specific industries.

I do not mean to dismiss the trade deficit. Given the composition of current domestic spending, the trade deficit reflects a serious problem. The U.S. now uses more goods and services than we produce, an amount equal to about 3.4 percent of GNP in 1986. This would not be a problem if domestic investment were unusually high.

The United States ran a trade deficit for most of its history until World War I, but that trade deficit was providing the resources to build up the domestic capital base and in turn providing the assets from which to pay the accumulating foreign debt. But that has not been the case since 1984. Since mid or late 1984, domestic investment has been weak, and the increase in the trade deficit was used primarily to maintain an unusually high level of private consumption and defense spending.

In effect, we are borrowing abroad to finance private consumption and defense spending, not to increase the domestic capital stock. This condition is neither sustainable nor desirable. The means by which the trade deficit are reduced, however, are important.

A reduction of domestic investment by such measures as higher taxes, a recession, or reducing the security of property rights in the United States would be a very effective way to reduce the trade deficit, but it would also be a disaster.

For a given level of U.S. output, the only realistic option is to reduce either private consumption or government services, and this will be the central political issue for some years. The only way to reduce the trade deficit without an absolute reduction in either the level of private consumption or government services would be to increase the growth of domestic output, and that should be the central focus of government economic policy.

The most important challenge to Federal economic policy should be to reduce the payoff to rent-seeking or wealth-redistributing activity. As long as occupational groups, unions, firms, and industry associations find it easier to increase their income by rent-seeking activities than by increasing their own productivity, our economy will become increasingly politicized and productivity growth will continue to be low.

We need to restore or to implement several types of implicit or explicit Constitutional rules that would make good economic policies safe for our politicians. We need to jointly bind ourselves, in effect, by rules that limit special interest spending programs, tax preferences of various types, deficit financing, differential regulations, trade restraints, discretionary monetary policy, and the progressive erosion of property rights.

In this regard, several contemporary developments are most disturbing. Those who refuse to address the budget deficit except by higher taxes, those who promote trade restraints or more general industrial policy in the name of competitiveness, those who promote increased mandates on private firms in the name of social welfare are the travel agents for the road to economic perdition. We need, in contrast, more wisdom about the sources of economic growth, not more data; more self-restraint by both the public and politicians, not more discretionary government; more freedom within general rules, not more central direction of the economy.

Several proxy indicators of which road we have chosen are the number of lawyers in the United States and the price of real estate in Washington, D.C. When I returned to Washington in 1981, I warned my wife that if the Reagan Administration were successful, we would lose money on our house. She correctly observed that I seemed to be hedging my bet. I need not remind you of what happened.

Thank you.

MR. CRAMER: Thank you very much, Bill, for a very insightful and well-spoken address. There's a lot of food for thought in all of this, and it's clear our panelists have strongly held views.

We now have the benefit of the government having not only the first word with Dr. Lenz, but the last word with Dr. Gaylord Worden. Dr. Worden has been Chief of the Industry Division of the Bureau of the Census since 1983. Previously he served as a senior economic advisor at Census and as Deputy Director for Economic Statistics in the Office of Federal Statistics, Policy and Standards, the Department of Commerce, and the Office of Management and Budget.

In addition, Dr. Worden has held various research and research management positions in the Department of Agriculture and at Iowa State University where he received his BA, MA, and Ph.D. degrees. I should note that in his honor, Dr. Worden has also served as a banker and a high school teacher. So he's seen all sides of this issue of competitiveness. Dr. Worden is also U.S. delegate to the OECD working group on industrial statistics and a recipient of the Commerce Department's silver medal for outstanding service.

DR. WORDEN: Thanks very much. My distinguished colleagues have pretty much focused on the concept definition part of our panel today. My task is to take up the last part and talk a little bit about measurement. I think that in listening to my colleagues, I've heard some agreement that first of all, competitiveness is very much a multidimensional concept. It covers a great many quantitative and qualitative kinds of variables.

In their remarks they said some things about what can and can't be measured, that the measurement may be difficult, that many measurements may be needed. However, there has also been agreement that efficiency and living standards are basic ways to look at the nation's ability to compete and to continue to compete. But we also need to compare such things as national income, net national product per capita, levels of productivity, job creation capabilities, consumer choices and other important aspects of our economy and other economies in comparing living standards over time.

Also I think there is a very clear agreement that to focus on some of the measures that we do have, such as trade and current account balances and changes in market shares is much too narrow and can even, in fact, be misleading in terms of what is really happening with the competitiveness of our economy.

My task, as I've said, is to translate these comments on concepts and definitions into a brief discussion on measurement. Let me offer, first of all, the suggestion that perhaps the reason we continue to have such a wide-ranging debate about competitiveness and different concepts is because we have not been doing a good job of measurement. In fact, we need to do a better job of measurement to reinforce appropriate concepts, definitions and understanding.

In the few minutes that I have here this morning, I'd like to focus my remarks on two areas. One is to pick up on the kinds of things that the speakers have talked about from the nation's standpoint and look at possible ways to make comparisons with other economies and the changing performance of our economy over time and, along with that, challenge them and each of you to think a little bit about and discuss with me the possible development of some broad indicators of what is happening in terms of our economy's competitiveness.

Secondly, I'd like to--in fact, I'll do it first--take a few minutes to talk about what the last afternoon panel is going to focus on, and that will be questions about the micro information or micro comparisons that we might have of what our U.S. firms and industries are doing to improve their competitive positions over time.

In focusing on these two points, of course, I have to leave out a lot of things about measurement that are important and that we could really discuss all day. For example, discussions about merchandise trade, trade in services, measurements, market share data, sectoral and competitiveness studies and so forth. Because of their importance in looking at the various aspects of what is happening in our economy, because of the many measurement problems, especially in comparison with other countries in terms of changing exchange rates and different inflation rates, and differences in definitions and availability of data among countries, we could spend all day discussing these other topics.

But I'm going to leave those aside and focus for a few minutes on my two points. First of all, the micro information. In micro information, I'm talking about data on determinants of productivity and efficiency, such as investment, research and development, development and diffusion of technology, costs of production, and organizational and management strategies used by firms.

Another one, of course, that many would like to include would be measures of quality of products and how quality is changing over time. I do think we could do some measurement on

and improve the information that we have on consumers' perceptions of the quality of the goods that they have available from either U.S. industries or from abroad.

I think that for most of these determinants we have both shortcomings in what we are measuring in the U.S., and difficulty in comparison with other countries. For example, on investment data, I think that in the U.S. we provide little of the detail needed on what types of capital goods are being purchased and how it affects technology and productivity.

Some discussions we've had at OECD are about work done in France that I think is quite intriguing. They have looked at investment flows for more intangible items, such as training, research and development, and development of marketing capabilities over a long period of time.

In France they found that the intangible investment estimates were running around 60 percent of what is being invested in plant and equipment, the tangible kinds of items that we traditionally measure, and found also that it is growing much more rapidly than the investment in tangible goods.

I think in the research and development area, we know far too little about process technology, and how much research and development is helping to improve our productivity and lower our cost of production.

Generally, in terms of manufacturing technology, we have little or no information on incidence and use of various types of technology. In the Industry Division we are just finishing a pre-test on a fairly simple survey, trying to get an initial measure of the incidence or use of various types of advanced manufacturing technologies. We hope to be in the field early next year with such a survey.

Canada picked up this same survey after discussion with us a year ago and has virtually completed a report for manufacturers in Canada.

And we hope that eventually we would have resources to develop enough of the concepts and measures in order to get more and better information on the adoption process and the effects of technology in our U.S. manufacturing sector.

In terms of cost of production, of course, we have very little information. Some work has been done in special studies related to filings of claims for import dumping by either the International Trade Commission or the Commerce Department. But in general, we have very little information about varying costs of production in different countries.

So those are the kinds of things that I think are important in thinking about improved measures for how our firms are doing and how they are working to improve themselves, their competitive positions, and their ability to compete with other producers over time.

Now, let me turn back to the discussion that we've had here today on more macro comparisons. Allen Lenz said that we could look at three different levels of information or three different levels of effects and I chose to take up the one on the nation. That also has been discussed by our other two colleagues in terms of importance of looking at the long-term improvements and changes in the standard of living and the various aspects of it.

I think we are fortunate that we have generally good measures on levels of national income, productivity, job creation, and other macro measures. And, in fact, because of standardized systems of national accounts, this type of economic information is available from most other major countries. There is some difference in timing and problems of this nature but, generally, similar data from other countries are available for various comparative types of analysis.

What we don't have is something that replaces our trade deficit, trade balance, or our current account numbers to indicate what, in fact, is happening. Instead we use the trade numbers or the current account numbers, because that's what is available and that's what people feel gives them some kind of a current picture.

So what I would like to do is discuss the possibility of developing a broader indicator, something to replace merchandise trade or current accounts. It might be called an index of competitiveness. It might be called some other type of index that we can construct and look at over a period of time.

One possible way to do this, I suppose, is like the study that was recently done by the Harvard Business Review and reported in last Saturday's Washington Post. There was a short article about a study they had just completed, and I quote from that article:

> Nearly 4,000 readers of the Review in 50 states and 35 countries responded to a magazine-sponsored survey titled, 'Do You Think There Is A Competitiveness Problem?' seeking comment on the performance of American business in global competition. The results in the magazine's September-October issue showed that

92 percent of the respondents believe U.S. competitiveness is deteriorating, while 5.4 percent indicated the nation's competitiveness is not deteriorating. And the director of the survey said the remaining respondents did not answer that particular query.

They also said that 87 percent believe that the problem predates the overvalued dollar of the 1980's and that, in fact, the U.S. is losing its competitive edge in the world; basic values, such as the work ethic, have also diminished according to this particular survey. Now, that's one way to develop a broad indicator--getting a viewpoint of joint conventional wisdom, but I don't think that's probably the best way.

I think that we, as economists, econometricians and statisticians, could do a much better job of developing some experimental indicators by looking at some of the things we've talked about here today. These should include the levels of job creation capabilities of the economy as well as some of the determinants of future change like the rates of productivity and investment, and changes in exchange rates. Other information about research and development and technology and innovations, something about changing rates of cost of production are variables to be considered for an index, and I'm sure some would want to suggest other variables, such as human resource development and quality measures.

So I'm suggesting that it would be useful at this conference to have a discussion about the possibilities and the desirability of developing some indicators or an indicator of this type.

Thank you.

MR. CRAMER: Dr. Worden, we appreciate those remarks in setting the foundation for a discussion among the panel members. As you can see, they are a very shy, retiring bunch and I'm sure that they won't have much to say.

After five or six minutes of discussion among the panelists, we would like to open it up to questions, and invite those of you in the audience to come to the floor microphones and pose your question either to individual panel members or to the panel as a whole.

If we could now hear from the panel to comment on each other's presentation.

DR. LENZ: Thank you. I don't have a lot of comment to offer, but let me just note a couple of things. I thought Bob Lawrence has a very interesting way of slicing up what we are talking about today and if I understood it correctly, although it's a different way of crosscutting, I don't see significant differences between the way he looks at it and the way I look at it.

Turning to how does the United States compare with other nations, he said we are number one in productivity. And it is certainly true that we are number one in consumption. Of course, the fundamental problem of competitiveness is whether or not we stay number one. He mentioned something that I think is very important. Are we interested in absolutes or relatives? Clearly, we are interested in relatives. I think that the relative standing has some very important implications that may soon become very important.

For example, if it becomes perceived in this country that we have a lower living standard and lower consumption than, say, Japan, there will be some important consequences. I emphasize perceived, because there are many problems in measuring living standards. But if it becomes perceived in this country that we are doing poorly relative to Japan, it seems to me there will be some difficult problems in U.S. defense funding. For example, it's hard for me to visualize a situation in which we are spending 6-1/2 percent of gross national product in the United States for defense, while the Japanese are paying 1 percent, at the same time that we make ends meet by continued borrowing abroad. So the relatives may turn out to be quite important in the not too distant future.

Bob Lawrence also mentioned that productivity isn't everything. A growth in productivity doesn't necessarily guarantee growth in performance in international trade. That would certainly be true, because productivity growth rates can be overwhelmed by a number of other things, including the saving and investment patterns of the country, the exchange rates and other factors. But it does seem to me that productivity--defined in the broad sense to include quality--is really the key.

Increases in productivity and increases that compare favorably with those of competitors are really the key to maintaining and enhancing a nation's standard of living over time, which is the way I chose to define competitiveness.

DR. LAWRENCE: My point on the President's definition was simply that a country can be efficient, enjoying rising living standards and still, in a sense, be falling behind. Now, I happen to believe that a country with America's endowments of human and physical capital ought to be able to provide its citizens with the world's highest living standard. So I don't necessarily want to say that we should accept not doing so.

But I think we've also got to recognize that we are living in a very unusual period of history, or rather at the end of a very unusual period in history. The United States' preeminence in the world (with Americans having twice the living standards of others) was a historical accident. When we look back on this period, and certainly when historians look back, they're going to see that there was really very little the United States could do to prevent the world from converging to its living standards.

Indeed, this was one of the great successes of the post-war period. It is simply a fact of life that it is easier to copy than to innovate. And once technologies became mobile and we had a relatively stable international system, those technologies were diffused. I think a positive result of the competitiveness discussion is that it makes Americans aware that the world has converged much more closely to our productivity levels and it requires us to come to terms with this new global environment.

In my view, in this new environment, there is something awry in that this country, with living standards similar to those of Europe and Japan, must carry the burden of the capitalist world's international defense. I agree with Allen in that it is an important implication of our discussion about relative living standards, although it takes us far afield from what we economists used to consider. I think we must reconsider the world, not simply from the standpoint of our defense policy, but more broadly.

Every one of our domestic policies has to now be reexamined in the light of the fact that we're part of an interdependent, mobile world. Many of the luxuries of inefficiency that we could afford when we had a dominant lead today have much more rapid and elastic implications and require reexamination.

DR. NISKANEN: I'm not one to quibble about definitions. If Allen wants to equate productivity with competitiveness, that's fine. And if he wants to use the word rhinoceros to be equivalent to productivity, that's fine with me, too. We just have to agree which words we're going to use in which context.

But if we are going to mean something different by the word competitiveness and the word productivity, we ought to sort out what we mean by those terms before we get very far along on discussion.

I think that a lot, not all, but a lot of the policies that are being justified in the name of competitiveness would reduce our productivity. And that's the reason why I want to be very sure to make a distinction between those concepts, regardless of what words we use.

Bob and Allen both brought up the interesting point that one of the major exports of the United States is one that does not show up in our trade accounts because we receive no compensation for it--the fact that we provide a large part of the defense for the Western world. Defense is a huge export of the United States, but it is one which, in effect, is a form of foreign aid rather than one for which we are compensated. That's an issue which we do need to sort out.

MR. CRAMER: Thank you very much. We would now like to give the audience an opportunity to direct their questions to the panelists.

QUESTIONER: Could we have Robert Lawrence answer how he would measure the efficiency concept which he referred to?

DR. LAWRENCE: Well, I think it is very difficult, firstly, let me say that. We do have studies which have tried to look at the inefficiency involved in things like monopolies throughout our economy and the costs of regulation and the costs of trade protectionism.

There are a lot of different studies that have tried to do that. In each area, there are very complex problems, so I cannot give you a very simple and short answer. I'd simply say that it is an area where there is tremendous scope for improvement.

One also suspects that there are many important things that we have difficulty measuring, that dynamic inefficiencies are where a lot of the action is. For instance, in the trade area, we know very little about what effect protection has on either increasing or decreasing innovation. There are people who argue on both sides of that coin, but we don't have a clear idea of it.

Other costs mentioned by Bill Niskanen earlier, not simply in terms of what we use in misallocating resources, but how much of our resources have to go into rent-seeking in our economy? Economists know that inefficiency, as conventionally measured, tends to result in rather small dead-weight losses. But we also know that from the standpoint of groups, the gains from achieving property rights through protection, for example, can be very, very large. Therefore, it is very rational for individual groups to invest large amounts of resources in trying to obtain those results. This is one cost of inefficiency that we simply can't detect or we don't detect in conventional measures. Indeed, my view is that the primary beneficiaries from this trade legislation and most trade legislation are, in fact, Washington law firms.

And in some sense, that is a zero sum gain, because if I hire good lawyers, you have to hire good lawyers, but at the end of the day, neither of us may be better off. The lawyers will be better off. Those kinds of costs aren't accurately measured. We know that there are many inefficiencies, and there is also much room for further study.

MR. CRAMER: Thanks, Bob. I held out telling my economist jokes, being a lawyer, but maybe now I will have to pull those out of the arsenal. Thank you for that response.

QUESTIONER: I'd like to make a general comment about political implications, since there seems to be a rather economic focus on the paneling. Since I work on Capitol Hill, it's only natural for me to think in those terms.

First of all, although absolute productivity may be increasing, there is a general impression across the country that young people may not be able to achieve the living standards that their parents have been able to achieve.

Secondly, our government is organized on a regional, a geographic basis. Representatives and Senators come from places which may have particular industrial sectors that dominate, sectors which we may not have a comparative advantage in and so, therefore, those sectors are declining and,

therefore, those regions are declining. There is going to be a natural tendency for our government to try and rectify that imbalance. It may even be desirable to have some degree of overall inefficiency or, to put it in harsh words, impoverishing of America on a very slight level in order to maintain a decrease in variability among living standards across American citizens as a whole. I'd like to invite comment.

DR. NISKANEN: One should recognize what regions and industries have been the losers in this game and the consequence of the change process that is going on right now is to make the distribution of incomes across industries and regions more equal. Now, you may regard that as a good thing and maybe other people do too, but I'm just making an empirical observation.

The losers in this process of change that has been going on have been people who used to be employed in steel and autos. Those are the highest wage industrial workers in the world. Those have been the losers and the regions that have lost have typically been the high income regions.

So we've had a convergence of incomes across sectors and across regions as a consequence of this change. Now, your general point is conceptually correct in the sense that we may as a community decide that maximizing average per capita income is not our only goal and that we're prepared to take some reduction in order to achieve other goals as well, for a variety of purposes.

And I recognize that that is the case, but I think that has little or nothing to do with all this trade legislation or most of this special interest bargaining. I think to rationalize the trade legislation in the name of social equity is an abomination.

DR. LAWRENCE: It is very interesting that in the same question, you pointed out that, first, young people feel their living standards are threatened, and second, you propose to do something to lower living standards.

But I think that is a dilemma that we really do face. People accurately perceive that things aren't improving the way they used to. Domestic productivity growth in this country has declined. I use the word domestic, because as best we can measure it, the complete halt in productivity growth that we've seen in the services sector of our economy is the number one drain in the improvement of our living standards.

And that has very little to do with the industries that we normally think of as engaged in international trade. Those industries should be our number one focus. Services account for roughly 60 percent of our gross national product. Stagnation in productivity growth is the number one problem that we face, but we have very little discussion about it.

During the rest of this day, you will hear very, very little about the services sector, yet that ought to be our number one focus.

Second, I'd like to say that on the question of regions, maybe we do need regional policies, but let's recognize that whenever we have a policy problem, the instruments of policy that we use must be as precisely targeted to the problem as possible.

It is inappropriate, therefore, to protect an industry in the entire economy because of the problems of a particular region. Let me remind you, for instance, that New England had a problem in the 1960's. It was associated with the textile industry. And one reason why we protected the textile industry was the dislocation of workers in New England.

Well, what actually happened as a result of that protection is that the textile industry expanded. Did it expand in New England? No. It expanded in the South. So we began the 1970's with a textile industry that needed protection, but lo and behold, it was somewhere else.

You see, if you want to help regions, you need regional policies. Conceptually, that's the appropriate way to tackle it. When you want to enhance your national defense, you don't protect entire industries. That would be very inefficient.

So I suggest that to the degree there are regional problems, we should have regional redistributive mechanisms. The experience in this country doesn't give one a lot of hope in our ability to contain the resource allocation to individual industries, to individual regions. But I would suggest that looking to trade to do it simply won't work.

You have to deal with a regions problems, and if you take the auto industry, for instance, protection may well even encourage the revitalization of our domestic auto industry. But if you'll look at the locational decisions that the revitalizers are making, i.e., the new Japanese transplants coming into this economy, you are struck by how few of them are attracted to the problem regions.

QUESTIONER: In his very helpful presentation, Mr. Lenz put up a chart on the board comparing manufacturing productivity rates of increase in the United States and in other countries, I believe over two periods, 1960 to 1985 and 1979 to 1985. I wonder if he and/or other members of the panel could tell us a little bit more about the specific numbers.

First of all, what are they measuring? Are they measuring overall manufacturing productivity, labor productivity? Secondly, can we be confident that they are measuring the same things for different countries? Thirdly, what is the degree of confidence we can have in these types of measures since these statistics would seem to be a key to understanding the competitiveness problem by some definitions? And finally, related to that, if these numbers were to continue, would they be a good guide to the relative future position of the United States vis-a-vis other countries, or would they be a misleading guide?

DR. WORDEN: To the best of my knowledge, these would be labor productivity measures in the various countries over the period of time. Of course, the ability to compare and the quality of the numbers depends a great deal upon the quality of the component parts, the measure of labor inputs and the measure of outputs that are used in developing these.

As I said in my remarks, I think that because of the standardized systems of national accounts and some related kinds of things that have been done, we could have some faith in these as measuring the same things for different countries. I'm not sure what's in the 11 other industrial countries, but in terms of Japan, U.K., Canada, and the U.S., I would think they would be comparable in terms of quality. As to what they mean for the future, I'll turn that over to my other colleagues.

DR. LAWRENCE: Well, I would simply point out that those numbers do show a kind of convergence. If you look over the period, the differences between American productivity and productivity growth abroad are narrowing as best we measure them. For instance, if you noticed on that chart, you'll see that in the latter period recorded, U.S. productivity growth in manufacturing was not very different from German productivity growth in manufacturing. Whereas, if you look historically, you saw major differences. So I do think that there is evidence that there has been considerable convergence. The same is true with respect to the Japanese.

So I don't think one would want to necessarily extrapolate these measures over time. The question I have about our recent improvement, which was alluded to in Allen Lenz's comments, is to what degree it represents a one time gain and to what degree it represents a sustainable trend.

There is what we call the batting average phenomenon, which is if you retire your three worst batsmen (usually we use this in cricket, but I guess it holds for baseball, too), the team average improves, although the team hasn't improved at all. You've simply gotten rid of those poor performers. And in the U.S., we've been closing a lot of plants around the country, and presumably we're retiring the least productive ones.

So, therefore, the measure of the average will rise as a result of that, but there is presumably a limit to the number we can retire. In any case, it doesn't really indicate the degree to which we are enhancing the leading edge productivity growth.

And it is striking that some of the sectors with the most rapid productivity growth that we measure are in declining industries. So that batting average phenomenon is probably contaminating some of the data. The same debate, by the way, is going on in the United Kingdom, as to whether we should declare Mrs. Thatcher's miracle a success or not depends on whether you want to give the batting average phenomenon a lot or a little weight.

So on the one hand, the figures give us some source of comfort. As I've indicated in my earlier comment, it is services where in the measured figures we get a much bleaker picture. Manufacturing figures show a convergence, but there are some questions about the meaning of that convergence.

DR. NISKANEN: One set of data that Allen presented should be used with great caution--the data on the net debt position of the United States. Those numbers, I think, are hugely misleading as indicated by the fact that the United States still has a substantial net inflow of returns from investment abroad. The general point, however, is correct--that we are clearly reducing our net asset position abroad even if possibly we are still in surplus.

DR. LENZ: No, I'd certainly endorse that. In terms of flows, we are still accruing net international investment income. The balance was positive in 1986. We probably will have a positive balance in 1987. The important thing is, however, the unfavorable swing that has occurred in the international investment position which, from 1982 to 1986, was in the range of $400 billion. This is a very big deterioration in four years and the deterioration will probably be another $140 or $150 billion this year.

DR. LAWRENCE: I just had a footnote. There is bias on both sides, though. We're still counting our earnings from developing country debt being paid to our banks. And I would question the value of some of those numbers on the plus side as well.

QUESTIONER: We have heard at least three things this morning. One, there are no quick fixes available. Two, the changes will be on a long term. And three, the United States cannot continue to borrow forever.

If I reduce the issue to basic terms, my prospect shows two extremes. Either we reduce consumption domestically, unless we can increase production more competitively, or the other extreme is we debase the value of our foreign debt through inflation. What lies in between according to the panel?

DR. NISKANEN: For any given level of output in the United States, reduction of the trade deficit requires that we reduce either private consumption or government services. That's an arithmetic conclusion. In any case, we're going to have to reduce say the consumption share of GNP in order to reduce the trade deficit, and if we are going to avoid an absolute decline on our standard of living, we have got to figure out a way to produce more. And that's a very real challenge. The more I look at the data, the more I wonder why anybody wants to be President in 1989.

QUESTIONER: Thank you. I'd like to go back to Bob Lawrence's analogy or rather historical experience from the New England area where the textiles moved to the South and just follow that through a bit. Of course, it wasn't only textiles. It was the footwear industry and so forth.

And what has happened is, they have gone from the South; now they have gone offshore. U.S. firms find that the best way to compete often is to source offshore, so we find that happening. Even computers--which were supposed to save the footwear industry that had left New England and, in fact, occupied the same plants--are facing competition.

The question is, Mr. Lawrence may have driven such a wedge between the political and the economic that we have some difficulty. He calls for a regional solution, regional remedies to solve the problem within the United States. Now, it's an international problem that we face. What do we do? Is there some limit to which we can allow or can no longer allow the erosion of an industry that we think is critical? Can economics give us any help in making assessments on that microeconomic level?

DR. LAWRENCE: I personally believe that there is no reason why, without policy, we will get the defense base that we require. Therefore, I would allow one exception to the degree to which an industry can shrink, and that is on the grounds of national defense.

However, in order to meet that objective, I believe we should apply our policy as precisely as possible. We should allocate money to the Defense Department to give us the best defense X amount of dollars can buy. If they think it is more important for our national defense to preserve X industry or X plant, relative to some other bombing system or arms development, they should spend the money on that.

So I do think there is that limit, with respect to national defense. I do not believe once the dislocation costs are taken into account, that other industries are in a sense necessary or vital. There is a need to stop shrinkage at a particular point, unless you can prove that there are very substantial spillovers or externalities from a specific sector. I find the argument that a centralized government could allocate resources more efficiently than the marketplace unconvincing.

In my view, therefore, ultimately we should be guided by the market. The best indicator of whether an industry is essential or not is whether it can function and earn a profit, and I think that that should be the determinant of how large our industries are on a commercial level.

That's not to say that I don't see grounds for the government to try in a more general way to encourage innovation

and research and development, and to try to perfect areas where we know the market fails. As I've indicated, I think the major area is in the production of new knowledge. But I don't believe we should go to designate quotas or minimum production levels which we regard as essential. I think that is something best left for the market.

MR. CRAMER: Any last words from the panel?

We want to thank our distinguished panel for their ideas and their thoughtful discussion today. One of my favorite Presidents said that after all is said and done, a lot more is said than done. I hope that we will not allow these things that have been said to languish, but that we will, in fact, take action as a result of the challenges we have received.

I, for one, though, have been so worried by these presentations that I think we ought to charge for the doughnuts, which will be available in room 1412 and 1413. We urge you to return at 11:15 for the next panel session and thank you very much for your participation this morning.

Panel Two: Improving Competitiveness of U.S. Business Through Macroeconomic Means

Chairman:

Robert E. Watkins
Deputy Assistant Secretary
for Automotive Affairs and Consumer Goods
International Trade Administration
U.S. Department of Commerce

Panelists:

George N. Hatsopoulos, Ph.D.
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Thermo Electron Corporation
Waltham, Massachusetts

John Makin, Ph.D.
Director of Fiscal Policy Studies
American Enterprise Institute
Washington, D.C.

Kenneth McLennan, Ph.D.
President
Machinery and Allied Products Institute
Washington, D.C.

Robert T. Green, Ph.D.
Professor of International Business
Department of Marketing
University of Texas at Austin

MR. WATKINS: We have a full program. I believe that it is wise, then, for us to resume. For those of you who were not able to attend the first panel this morning, I welcome you to the resumption of today's conference on competitiveness. We are proceeding on the basis of two assumptions.

The first is that the first panel adequately addressed the definition and measurement of competitiveness, whether that be increased productivity or rhinoceros or what have you. I would only say that a rhinoceros by any other word is just as large, so clearly we have a major problem that we are addressing today.

The second assumption is that, however we have defined competitiveness, it is desirable for us to improve the competitiveness of the U.S. economy and U.S. industry in particular. And it is with those two assumptions that we proceed to the first of two panels, this one and the one immediately following lunch in which we will be addressing ways in which U.S. competitiveness can be improved.

The focus of this panel and our objective is to address various macroeconomic policies that might be used to enhance competitiveness. We have a very distinguished panel with us this morning to address this issue, and I think it is useful for us to immediately proceed into the panel. I will introduce each of the panelists prior to his presentation. I will begin with Dr. George Hatsopoulos.

Dr. Hatsopoulos is Chairman of the Board and President of the Thermo Electron Corporation in Waltham, Massachusetts. He was the founder of that corporation in 1956. He received his BA, MA, and Ph.D. degrees in mechanical engineering from the Massachusetts Institute of Technology.

Dr. Hatsopoulos served on the faculty of MIT from 1956 until 1962, and still serves there as senior lecturer. He is also Deputy Chairman of the Federal Reserve Bank of Boston, a member of the Board of Directors of the National Bureau of Economic Research, Regional Vice Chairman of the National Association of Manufacturers, and sits on the advisory board of the program on technology and economic policy at Harvard University's Kennedy School of Government.

Dr. Hatsopoulos.

DR. HATSOPOULOS: Thank you very much.

I would like to concentrate my remarks on the causes of declining U.S. competitiveness. In order to do that, I will have to repeat some of the things that you heard this morning, because you'll see that causes and effects are very closely interrelated.

First of all, let me say that the nation has only recently become very aware of the competitiveness problem, primarily as a result of the huge trade deficit that was realized in the mid-1980s. When you go back over the last 20 years, however, you find that our competitiveness problem has existed for a long time. But, because it did not manifest itself in something that the public or Congress could recognize, concerns were limited to some expert economists or businessmen. Unfortunately, in the eyes of the public and Congress, such individuals were characterized as alarmists.

Now, of course, the problems are showing up to an extent that everyone has become very concerned about competitiveness. It should be noted that the trade deficit and competitiveness are two different things. They are interrelated in some ways, but it is very important to understand the differences as well.

The trade deficit is essentially a short-term problem, and, of course, as you heard this morning, that results in us going in debt to foreigners. We are, of course, accumulating foreign debt at an alarming rate. We are also losing market share in manufacturing--the main component of the trade deficit. The manufacturing sector, which used to provide a surplus, last year provided a deficit of $133 billion.

The fundamental reason for that shift is that manufacturing offers to every international competitor the best chance to improve its standard of living. This is so because the value-added in manufacturing is usually much higher than in other activities and the productivity growth in manufacturing is consistently higher than most other sectors, especially services. Thus, the country that increases its share in manufacturing has a better chance to improve its standard of living.

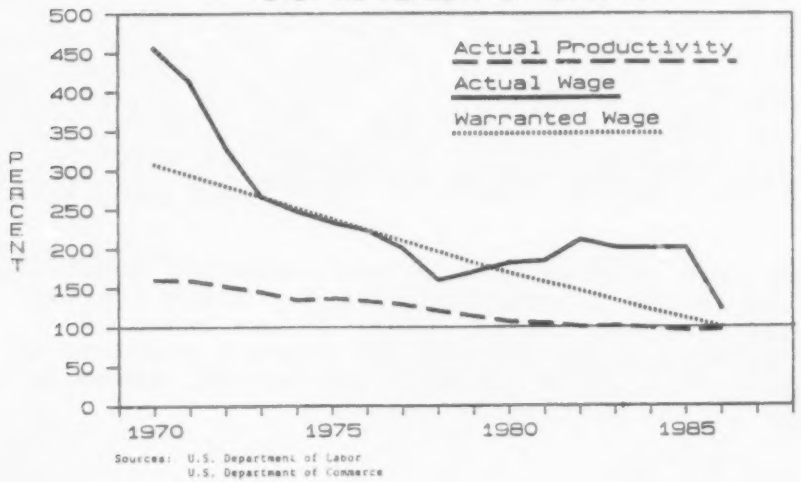
The long-term problem that we are concerned about is, of course, the lag in the standard of living. There are two aspects to this problem: First, there is the issue of productivity growth, which affects the overall standard of living throughout the whole country, and second, there is the issue of wages in any particular industry.

Econometric studies, such as those of my co-worker, Professor Paul Krugman, who has done much of such work, demonstrate that if we had wanted to maintain a balance in manufacturing trade over the last 20 years, our wages, denominated in dollars, would have to be reduced by about 6 percent per year relative to a weighted average of wages for other industrialized countries. Now, 6 percent per year is an enormous reduction, especially when applied over a 20-year period. This rate of change brought Japanese manufacturing wages from 20 percent of U.S. wages 20 years ago to a point very close to ours today.

The prospects for the future are alarming: By the end of the century, we may end up, relative to other major industrialized countries, in about the way that the U.K. ended up 20 years after World War II with respect to Germany, Italy, and France.

I'm going to show you some comparisons relative to Japan, our major competitor, but what I'm going to say applies to all the other major competitors as well. The dotted line in Chart 1 represents the ratio of dollar-denominated wages that the United States would have to have relative to Japan in order to maintain a trade balance. The solid line represents the actual wage ratio. Whenever the solid line goes above the dotted line, we have a trade deficit in manufacturing. When the actual wage ratio falls below the dotted line, we have a trade surplus. You can see that for some time in the 1970s, we were able to maintain a trade balance, and then by 1980, things went haywire. Our wages did not follow the needed decline, and so we ran into huge trade deficits.

CHART 1
RELATIVE PRODUCTIVITY AND WAGES
IN MANUFACTURING
U.S. AS PERCENT OF JAPAN'S



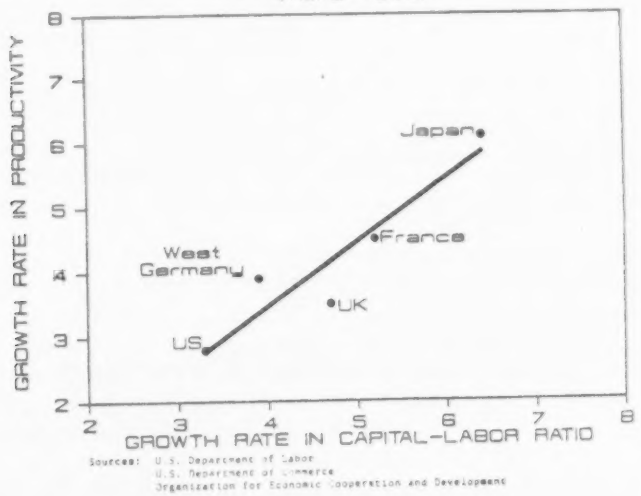
Sources: U.S. Department of Labor
U.S. Department of Commerce

I'd like to point out that there are two ways that you can affect the wage ratio. One is to adjust relative growth in wages, expressed in home currency between two countries. The second way is to adjust the exchange rate. Both adjustments have been occurring in the past.

In the previous chart we have also plotted, in absolute terms, the ratio of U.S. productivity in manufacturing relative to Japan (dashed line). The slope of that line is about 3 percent per year, or about one-half of the 6 percent slope of the dotted lines. Thus, about half of our problem is slow productivity growth, but it is only half the problem.

It is well known that the most important contributor to labor productivity is the ratio of capital to labor. An examination of five industrialized countries (Chart 2) shows that productivity growth has, in fact, been moving in accordance with the rate of capital formation. The line on Chart 2 is a regression line relating growth in productivity to growth in the capital-to-labor ratio. The slope of that line is one-to-one, but from generally accepted theory of productivity, the slope should not be more than 40 percent.

CHART 2
GROWTH RATE IN PRODUCTIVITY AND CAPITAL-LABOR RATIO
IN MANUFACTURING
(1970-1986)



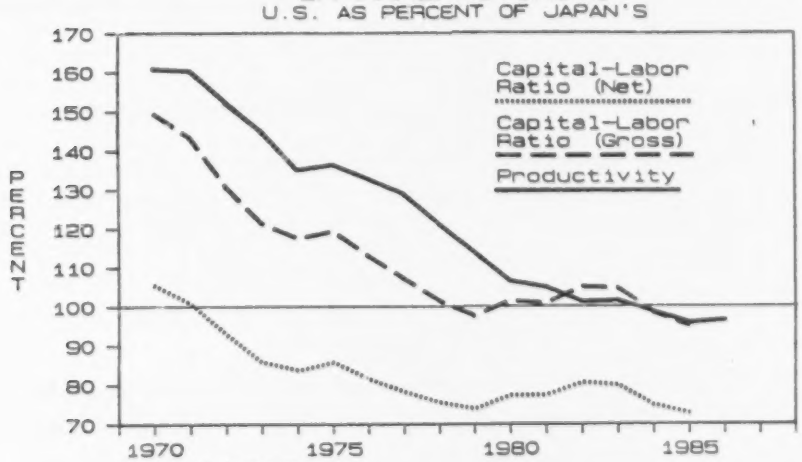
Sources: U.S. Department of Labor
U.S. Department of Commerce
Organization for Economic Cooperation and Development

A probable reason for the high slope, something discussed in today's earlier panel, is the large amount of catching up that occurred in the 1960s and 1970s. Right now, growth in

productivity seems more in line with growth in the capital-to-labor ratio, so we feel that the differential growth between the United States and other countries is going to be somewhat less than it was in the 1970s. However, the gap will continue to be significant.

Chart 3 shows the ratio of U.S. productivity to that of Japan, measured as best we can in absolute terms. Also shown are gross and net capital-to-labor ratios. We find that Japan's manufacturing sector reached an absolute level of productivity equal to our own some time between 1982 and 1985 by having a higher capital-to-labor ratio. Therefore, you might conclude that Japan's productivity performance has not been exceptional. In fact, it might be concluded that they still haven't caught up fully with the aggregate technology of the United States, because if they had, they should be able to match our productivity with the same capital-to-labor ratio.

CHART 3
PRODUCTIVITY AND CAPITAL-LABOR RATIO
IN MANUFACTURING
U.S. AS PERCENT OF JAPAN'S



Sources: U.S. Department of Labor
U.S. Department of Commerce
Organization for Economic Cooperation and Development

Note: Net Capital in Japan was derived from investment flows by assuming depreciation rates in Japan are the same as in the United States.

Considering the extremely large disparity in capital formation between Japan and the United States, one might question the validity of the much-discussed intangible advantages--worker's attitude, management excellence, etc.--that are often cited to explain Japan's high productivity.

Indeed, anecdotal studies, and I've seen several of them done at MIT, show that in whole industries, the management and workers are substantially better behaved in Japan than in the United States.

How, then, does that fit with what I am saying here? The answer, I think, is that we haven't counted all the advantages and disadvantages. At a time of national crisis, Americans tend to blame themselves too much--to look only at the disadvantages and overlook key advantages.

In reality, we have some very important fundamental advantages over Japan. For example, we have a lot more natural resources, and the transportation costs for these resources are much smaller. Also, we have more land, and that's an important factor. In Japan, a factory making instruments would use about one-fifth as much land as our counterpart, simply because land in Japan is limited and very costly. Other factors, such as lifetime employment, have both positive and negative effects, so the overall picture is quite complicated. Nevertheless, it is apparent that Japan's manufacturers have to work more efficiently just to catch up with us. In weighing Japan's overall productivity performance, however, it is clear that capital formation plays a major role.

We might ask ourselves why Japan invests much more than we do in manufacturing? Is there something wrong with our corporate managers?

It is here that we began searching for the economic motivations that may prompt U.S. managers to invest less than the Japanese. We have conducted exhaustive studies on the cost of capital over the last few years to examine this question, and have presented the results in several papers and articles.

Our latest study shows that, although there is some convergence, the cost of capital for manufacturers in the United States is still about 2-1/2 times greater than that prevailing in Japan. In fact, a careful look at the data shows that U.S. managers are actually investing more than is justified by their high cost of capital--a cost which is primarily macroeconomically driven.

Although capital formation is certainly a major part of the problem, there is still another 3 percent annual decline that we haven't explained, and this is something that we are studying right now. It could be accounted for by the fact that the Japanese have only recently caught up with us. It might also be due to the quality and technology improvements they are achieving.

Most of the high-tech executives in Boston are well aware that quality is important, but they also know that it costs money. Achieving high quality requires not only R&D, but also engineering, marketing, service and many other costly activities. These intangible investments, which a company must make, are just as much a part of capital formation as are assets such as plant and equipment. The problem is that we don't have any solid data on this class of investments.

We speculate, however, that the disparity in intangible capital formation between the United States and Japan is probably larger than that for fixed capital formation because our studies show that the gap in costs of intangible capital between the two countries is larger than that for fixed capital. If this speculation proves to be true, the rate of intangible capital formation could account for much of the remaining 3 percent per year gap in performance between the two countries.

In summary, the 6 percent per year decline in manufacturing wages of the United States relative to Japan that has been necessary to maintain a trade balance over the last 16 years may prove to be caused by (1) technological catch-up, (2) disparity in fixed capital formation, and (3) disparity in intangible capital formation. I must stress the fact that this is only a tentative picture that we have evolved. Assuming that we are correct, however, it is reasonable to ask: What can we do to fix the problem?

One obvious approach would be to make changes that will reduce or eliminate the cost of capital differential between the United States and Japan. I'm not going to discuss the various policy options that would be required to accomplish such a shift, for they are both complex and technical in nature. The important point to be made here is that the U.S. is not in a position to solve the cost of capital problems because at this point, we cannot afford to do so.

This is really the key issue: that we are basically in a "Catch 22" proposition, and it relates to our low rate of national savings. The term national savings denotes the sum of personal savings plus corporate savings plus state and local government surpluses minus the Federal dissavings.

National savings, which throughout the post-war period has varied from about 6 to 8 percent of GNP, for the first time since the depression has declined to below 2.5 percent. The primary cause of this decline is the big Federal deficit, which has gone from less than 1/2 percent of GNP to about 4-1/2 percent. Further contributing to the problem is a decline in personal savings.

What has that got to do with the capital formation problem we are talking about? Net investment in the United States has to be funded somehow. It was funded throughout most of the post-war period by national savings, but with the sharp drop in national savings we have had to import capital. As pointed out in the previous panel, this means we have had to run a trade deficit. So now, in order to get back on par with the Japanese and our various other competitors, and to avoid the stagnation in our standard of living, we've got to get investment up to what is needed, probably about 10 percent of GNP. However, if you did that without increasing national savings, then you would have to increase the trade deficit to $400 billion. Then we would be going in debt at a rate even faster than we are now.

On the other hand, if you try to reduce the trade deficit by whatever means, there will not be enough resources allocated to investment. So either we solve our short-term problem at the expense of the standard of living for the rest of the century, or we address the long-term problem, which requires a sharp reduction in our standard of living in the short-term.

Clearly we are facing a horrendous "Catch 22" proposition, and I'll be glad to elaborate more on this during the question period.

Thank you.

MR. WATKINS: Thank you very much, Dr. Hatsopoulos.

The second panelist, who will hopefully be addressing the kind of problems that Dr. Hatsopoulos was addressing as well, is Dr. John Makin. Dr. Makin is currently a resident scholar and Director of Fiscal Policy Studies at the American Enterprise Institute.

Dr. Makin received his Master of Arts and Ph.D. in economics from the University of Chicago and was a professor of economics at the University of Washington, where he also directed the Institute for Economic Research.

He is the author of numerous books and over 50 articles on a wide range of domestic and international economic topics. His most recent works include: U.S. Fiscal Policy, Its Effects at Home and Abroad, and Exchange Rate Targets, Desirable or Disastrous?

DR. MAKIN: Good morning. It's a pleasure to be here to talk about competitiveness. I feel very comfortable following George Hatsopoulos, whose excellent presentation put the problem before you very clearly and, I think, avoided a pitfall that often is contained in discussions of competitiveness--that is, somehow we've got to get more competitive or we've got to feel better doing it and we've got to keep our standard of living high and so on and so forth.

There are some real fundamental conflicts in American micro and macroeconomics and American life involved in improving our competitiveness, and I think there are some fundamental questions regarding whether we really want to do it.

If one judges by revealed preference--that is, our personal saving rate--we decidedly do not. But let me begin by defining a competitiveness index, which people may have a quarrel with, but I find it a useful way to organize my thoughts about competitiveness and around which to discuss some of the options that may be available to us.

I would define competitiveness as the ratio of factor productivity to factor costs in the United States relative to abroad. Our major factors of production are capital and labor, and if we want to become more competitive, we have to increase the productivity of labor or increase the productivity of capital, and we have to do it more than our competitors at given factor costs.

Alternatively, we could reduce factor costs. That's the unpleasant part. Factor cost in labor is real wages. The factor cost of capital is the cost of capital that George Hatsopoulos discussed, which is basically an amalgam of tax factors and the real interest rate.

Now, you have to keep these things in mind. In other words, it's factor productivity relative to factor costs in the U.S. relative to the rest of the world for both capital and labor. So when you think about this, a number of options fit in nicely.

The first thing that comes to my mind when I look at this is to think about the effects of a weaker currency on our competitors. In a sense, I think it is important to understand this because a misunderstanding of the effects of dollar depreciation has led us to perhaps expect more from dollar depreciation vis-a-vis the trade balance than economic theory would suggest.

I want you to forget about the "J-curve." I want you to forget all about that discussion, at least for the time being, if for no other reason than it hasn't been a very useful way to predict the behavior of the trade balance. I hesitate to say that here in the Commerce Department, but let us lift up our eyes and look elsewhere.

Where I went to school, a currency depreciation operated to reduce the trade balance by lowering the cost of labor. It's an exogenous increase in the price level that makes you worse off, and that's exactly what you are supposed to be if you want to improve competitiveness and reduce the trade deficit. You've got to absorb less. One way to make you absorb less is to reduce real purchasing power through an exogenous increase in the price level--that is, an increase that comes from outside the United States and lowers the real wage. And in that way, it improves the trade balance, because you buy less; it also improves competitiveness, other things equal, because real wages go down.

Why does currency depreciation usually not work to improve the trade balance or competitiveness? For the very real and sensible reason that policymakers--when they observe the pain that arises from depreciation--respond to the symptoms of tight money and lower wages that currency depreciation produces by saying: "We'll make it better and create more money and we'll negotiate for higher wages." The increase in competitiveness and the reduction in absorbtion go away and, when you look at imports measured in dollars, they continue to rise.

The basic thing to understand about competitiveness, I suppose, is to be careful what you wish for. If you really want to be more competitive, you are going to have to experience a lower standard of living for some period of time or you are going to have to get a miracle: that is, an increase in productivity that comes from somewhere out there that we don't yet know.

In the past, when it comes to saving and capital formation and competitiveness, America has been very lucky. I look at America as the country where something always turns up. We have historically been low savers and relatively good capital formers, because something turns up to make it attractive to form capital.

In the 19th century, when we had a period of rapid capital formation, it was expansion of the frontier. In the 20th century, there have been various expansions of the technological frontier. In some cases, these have enhanced the

growth of productivity of capital, which has enhanced capital formation. That, in turn, has enhanced labor formation and labor productivity, and increased real wages.

We are now in a period where we are wondering if something is going to turn up. Most long-run studies of economic growth which compare real growth rates, capital formation, and productivity internationally suggest that 1973 was probably a break point--where the United States' real growth rate broke a trend that was in the 3 to 4 percent range and dropped to the 2 to 3 percent range.

If you look at our saving behavior--that is, our dissaving behavior that George had very nicely displayed up here--one could say that America's low rate of savings is a rational response to a temporary reduction in our income. That is one of the reasons to dissave; saving is a shock absorber. One of the reasons to dissave is that if you have a bad patch, you draw down on your reserves and maintain your consumption and standard of living.

I think as we approach 1988, we are beginning to wonder if 15 years is a temporary bad patch. At the same time, we are noticing that while we wait for nature or some breakthrough to restore our competitiveness ...I'm sure that superconductivity is very promising, but I mean the way we've seized on it that this is the answer is very characteristic. It is human nature to say there will be some breakthrough so that we'll be more competitive and we'll be able to spend just as much.

Nature may not be that kind, but competitiveness, of course, is a relative concept: It's how we are doing in terms of productivity and what we are absorbing in terms of real wages and cost of capital relative to the other guys. What we have seen is that the other guys are willing to work harder for less and produce more.

Now, when this all started in the '60's, we were way ahead. In fact, we were so far ahead that we would sometimes help out. Parenthetically, the best way, if you want rapid capital growth and a rapid increase in productivity, to get it if you don't care about the consequences--I'm not recommending this--but World War II eliminated the capital stock in Japan and Germany. They had no capital. So when they rebuilt the capital stock, they rebuilt it with newer equipment. They had the benefit of our experience as they rebuilt and they had the benefit of our financing.

So when you look at the numbers, the growth in productivity outside of the United States in the period from 1950 to 1973 is remarkable. And the growth of productivity relative to factor awards is even more remarkable.

So we have a catch-up phenomenon. But I think when you are talking about productivity, it is important to remember that we are not running a race, in the sense that once we cross the finish line the story is over.

When two runners race, the one who crosses the finish line wins. We are in a race that keeps going around the track. That is, in the process of undertaking and producing goods and consuming them and so on, we are steady-stay producing the capital stock. We are talking about relative improvements in productivity. It's not relative levels. Those are implicit in the higher rate of improvement in productivity abroad. Levels are converging.

Another thing to bear in mind is that catch-up is a natural phenomenon. If you are way ahead, you are going to get caught up with--or at least those are the lessons of economic history. You don't want to be passed and left in the lurch, but you are going to get caught up with quite simply because when you think about what it means to be highly productive and highly competitive, it means you are willing to work harder for less than anybody else.

One of the things that is particularly frightening--and understandably so--to American labor is that it is well recognized in the highly productive niches like Korea and Taiwan that people are willing to work harder for less than Americans.

In a highly integrated world economy, their goods beat ours in the marketplace on a cost basis. If they beat us on a quality basis, too, there is no excuse. We've got a real problem. Well, with this background in mind, what do you do to improve competitiveness?

I think on the labor side--and remember that labor is roughly two-thirds of the story and capital is roughly one-third of the story in terms of accounting for most growth in economic activity--it would be nice to improve the productivity of labor. I don't see a way that that can be done over the next six months. Obviously the way you improve labor productivity is to improve education--all the things that people have said that take a long time to do. It is not a surprise that labor productivity has deteriorated after the experience in our high schools and universities in the 1970's, when the vogue seemed to be to spend all your time doing things that had no practical use and not necessarily to learn how to read and write and calculate.

I taught economics at university level for 10 years before I realized--and this was the University of Washington which admits, quote, "the top third of high school graduates in the state." It took me 10 years to realize that one of the difficulties I was having communicating economics was that most people could not deal with a two-dimensional graph, and the vertical and the horizontal axes and what you meant when you were drawing on those axes was not at all clear to people because they hadn't learned it in high school. Many of the students had not learned that one-third is the same as .333. These are little details that you have got to know if you are going to be productive in a highly technical world, but that are not universally produced in our high school system and should be produced by junior high school. We need quality control in education.

So you need to improve the productivity of labor. It's not going to happen tomorrow. You want to improve competitiveness? A quick way to do it is to lower real wages. We've been trying to do that by depreciating the currency, but, of course, labor has caught on to that and is now understandably negotiating for higher wages.

All I'm saying is if real wages go up more than productivity increases, our productivity will deteriorate and we will continue to find it very difficult to compete in world markets.

On the capital side, the latest numbers that I can get--from a study that was done by Angus Madison on long-run growth and productivity, which I highly commend to anyone who is not put off by a little bit of economic jargon (in the Journal of Economic Literature recently)--indicated that the growth of capital productivity in Japan has been sharply negative, about 3 percent a year since 1973.

Our growth of capital productivity was negative, but less so. This is kind of a mystery to me--and the measurement problems involved in measuring the productivity of capital are very great, so one is very uncomfortable putting too much weight on this. One of the possible edges we might have on the Japanese would be that Japan appears to be have been putting into place a lot of capital that has not been highly productive by international standards.

That may not be inconsistent with a very low cost of capital in Japan. The Japanese may be overinvesting. One thing, however, that we should not do to encourage competitiveness is to try to stimulate investment directly. Now, here I may get some disagreement, but let me explain.

So we want to encourage more saving, and thereby lower the cost of capital and encourage more investment rather than go at it directly. Remember that in the period from 1982 to 1984--when we encouraged a lot of investment while we had a high level of government saving--we got a very strong currency and high real interest rates.

The strengthening of the currency rendered redundant a lot of the capital formation that was undertaken on the expectation that the dollar would not appreciate so much.

Let's suppose that we say we want more capital, so we are going to stimulate investment by, in effect, putting a zero marginal cost of capital, marginal effective tax rate on investment X. We will then cause more investment in that area than the market would normally produce, and so although we have lowered the cost of capital, if it is a marginal investment, the increase in productivity from that investment will also be lower.

What we should do--and I think here I'm consistent with what George is saying--is encourage saving so that we have a shift in our saving behavior that lowers the equilibrium real interest rate, and tends to also be consistent with more competitiveness by allowing some currency depreciation--rather than appreciation, which comes from demand stimulation with investment.

Again, we need to stimulate capital formation the easy way by inducing it through more available saving and, of course, reducing government dissaving, and thereby reducing the budget deficit. I said that we need to encourage more saving. Frankly, the numbers, as George has shown you, are not encouraging. Americans are being very reluctant to increase their savings. We can certainly rail about the Federal deficit. Yes, we need to cut the Federal deficit. We'll have to--despite all the rhetoric, we'll either have to cut spending or raise taxes. There is really no other way to do it, and I suppose we'll decide that during the 1988 election, although every candidate will avoid mentioning either.

You'll have to write into your ballot that I want to do one or the other so that Congress can get off the dime. But certainly that would help.

But there is more, and that is our personal saving rate irrespective of government dissaving is remarkably low. And I puzzled about this. I've done a lot of work, studying behavior of saving in Japan and the United States and elsewhere. We've

always had a low personal saving rate, partly because we've managed to grow with the something will turn up idea that I mentioned earlier--either some technological breakthrough or some frontier. But now, I think we may be finding that we areat the point where if we want to ensure capital formation, we will actually have to go without a high level of current consumption. There is no demonstrated willingness to do so.

Why? Well, what is saving? Saving is a provision for an increase in future consumption. That's net savings. We need to have gross savings to cover depreciation so we can stay even, but net saving is a provision for an increase in future consumption.

I can't test this hypothesis, but maybe America as a nation is so rich that when we think about increasing future consumption, we say, I'm really not interested. I don't know. I mean there is a great deal of revealed preference for consumption now rather than consumption later.

In other words, part of the problem is on the taste side. That is, we prefer it now rather than later. Fortunately or unfortunately, depending on how you look at it, most of the rest of the world prefers it later rather than now, and so when you put our capital markets together, we quickly borrow $150 billion a year--that's why we have a trade deficit.

It's a little bit like a dangerous combination turning Japanese savers loose on American consumers, as was done in 1981 when the exchange control laws were relaxed so that capital could flow out of Japan. We have been accommodated. The fact is that we will have to pay the interest in the future, so we'll be a little worse off. I'm not saying this is terrible in terms of the state we are at right now.

This is probably a $50 trillion economy. If we're in net debt $250 billion, that doesn't mean we're in for a calamity. That simply means we'll have to pay the interest in the future. It simply means at this point we are opting for current consumption over future consumption

What else could one do? I suppose we could say well, our current tax system, which is an income-based system, taxes saving twice. If we went to a consumption-based tax, it would tax savings once and that would encourage saving.

That's a controversial proposition, but I find it hard to avoid the notion that in a country with the world's lowest saving rate, eliminating the double taxation of saving that's implicit in an income tax system isn't something we ought to try if we want to increase saving and thereby improve competitiveness.

It may be that we are seeing a situation where we know what to do (save more, reduce consumption), but we don't want to. And we have some very willing lenders in the world prepared to supply to us--on remarkably easy terms when you think about it--the wherewithal to continue a relatively high level of consumption.

I suspect that what will happen will be that the economy will eventually grind out the answer. That is, the terms on which the rest of the world is prepared to lend to us will get harder--as they have over the past six months; long-term interest rates have risen by two full percentage points.

Eventually the higher interest rates will induce us to consume less and save more and, hopefully without a recession, eventually the absorption in this country will go down and the reduction in factor rewards that comes with that--that is, the lower real wages--will help to improve our competitiveness. If we want to make it a little easier, however, we probably should be thinking along the lines that George suggested and I mentioned: a long-run approach to increase labor productivity; better education; increasing the productivity of capital (cutting the National Science Foundation budget while funding farmers is probably not going to improve competitiveness); measures to reduce real interest rates by encouraging saving. Those are the ways to do it. The real question is whether we want to do it.

Thank you.

MR. WATKINS: Thank you, Dr. Makin. According to my simple tally of where we are now, it seems that we have had reinforcement of the nature of the dilemma between the choices of consumption and savings and that impact on competitiveness, but we have had a number of suggestions as to what we might do about it.

We will now call upon Dr. Kenneth McLennan to make his contribution to this discussion. Dr. McLennan became President and Chief Executive Officer of the Machinery and Allied Products Institute in March of this year. Previously he was Vice President for Industrial Studies at the Committee for Economic Development, Division Chief at the OECD in Paris, Deputy Assistant Secretary of Labor for Policy in the U.S. Department of Labor from 1972 to 1974, and Chairman of the Department of Economics at Temple University. Dr. McLennan received his Bachelor of Science Degree from the London School of Economics, his MBA from the University of Toronto and his Ph.D. from the University of Wisconsin. He has published numerous articles and is the co-author of a recent book entitled Productivity Growth and U.S. Competitiveness.

DR. McLENNAN: Thank you very much. I'm very pleased to be here. I had thought that perhaps George and John would disagree so much that I could come along and give you the correct answer. Unfortunately, I think there is a good deal of agreement between them, and I think you'll even find that there is a good deal of agreement among all of us.

I have a few charts, and I'll try to present them quickly. They will present a similar story to the one told by the two previous speakers.

Chart I presents the sources of gross domestic saving in the United States and you can see what is happening. Our private savings (the dotted line) has been going up and down in relation to the gross domestic savings line (the solid line, on top). Even in the period since the late 1970's to the present, our private saving has been fairly strong. As George Hatsopoulos pointed out with his charts, the major culprit in our overall poor saving performance has been government dissaving.

Chart I

Sources of Gross Domestic Saving in the United States

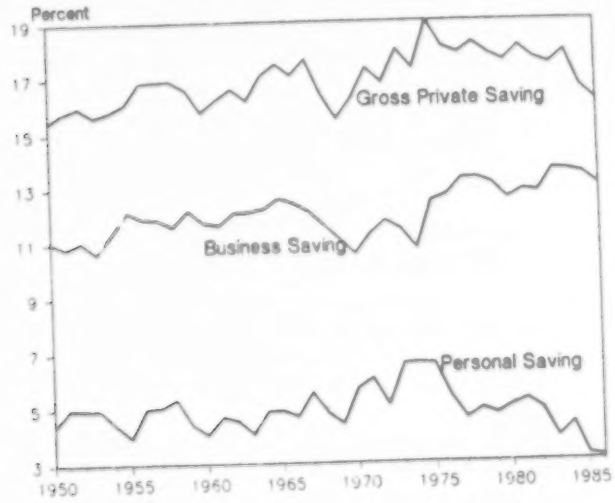
(Saving as a Percent of GNP)

Source: Department of Commerce

It is interesting to note, though, that it is not unusual for the government to be dissaving and, indeed, after every recession, during an upswing in economic activity government dissaving is reduced. This has not happened during the strong

economic growth during the 1980's (see Chart I). The second chart shows the long-run rate of personal savings. As shown in the chart, we've always been a relatively low saver compared to the saving rate in other countries.

Chart II
Sources of Private Saving in the United States
(Saving as a Percent of GNP)

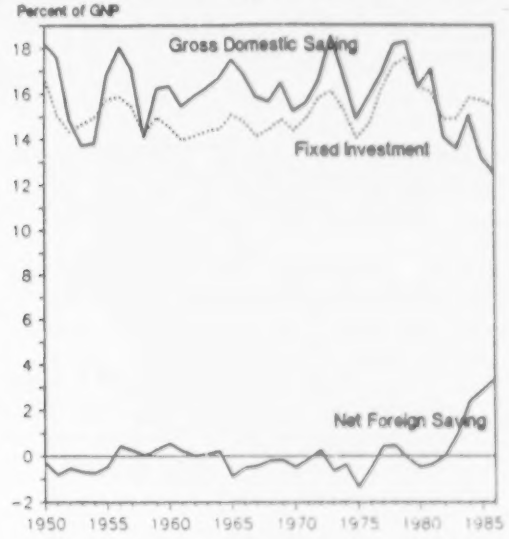


Source: Department of Commerce

But it is also important to remember that in the total savings, business saving is very important. That is, retained earnings and depreciation make up a very large part of gross private savings, and that's often forgotten in discussions; I think that gives us some clue as to where our policies ought to be directed, namely towards dealing with fiscal policy as it affects business, as well as fiscal policy as it affects individuals.

The third chart shows that we have continued to have a stable level of fixed investment. The dotted line has gone up and down over the period as shown, and part of the problem, of course, has been that our gross domestic savings and financing has declined (the solid line, top), but our fixed investment has been increasing due to the fact that we have been receiving net foreign savings to support this investment.

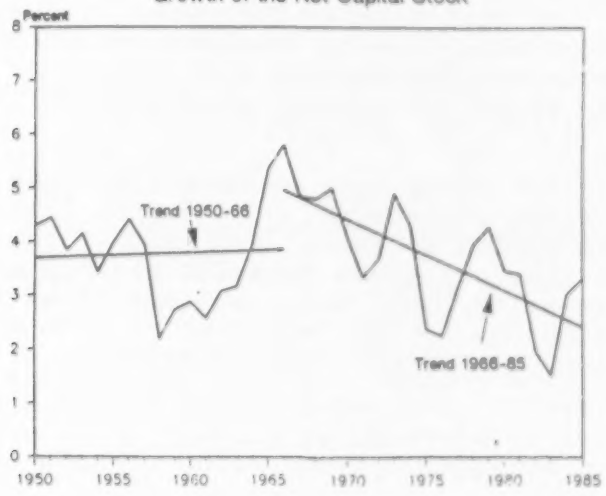
Chart III
Domestic Saving and Foreign Saving Finance Investment



Source: Department of Commerce

The fourth chart is central to what I see as the source of the competitiveness problem. If you look at the growth of our net capital stock, you find that in the period from 1950 to somewhere around 1965, the trend has been fairly steady and slightly, very slightly increasing growth in our addition to net capital stock.

Chart IV
Growth of the Net Capital Stock

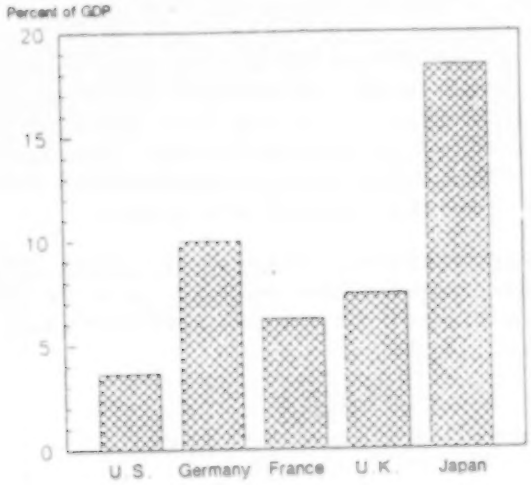


Source: Department of Commerce

Something happened to net investment after 1965, when the trend line has been clearly downward. Clearly something has happened since the late '60's and '70's. Many factors have caused the decline in the rate of growth to our net capital stock. I think that has been an important element in causing the problem of competitiveness.

The fifth chart compares personal savings rates in a number of countries in 1985, which is one year, to give you some sense of the different rates of savings among countries. You can see that in the case of Japan their rate of personal savings is two to three times greater--and sometimes perhaps even higher--than our own.

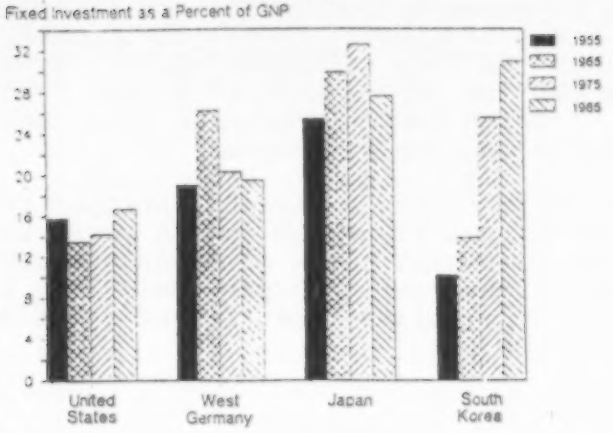
Chart V
International Saving Comparison
(Net Saving as a Percent of GDP, 1985)



Source: Organization for Economic Cooperation and Development

Now, I want to go back and show again something in addition to the point that George made about the rate of investment compared to fixed investment--plant and equipment--compared to other countries. In the sixth chart, you can see that for the United States, over a period of some 25 years, we have a roughly constant share of our GNP being invested in plants and equipment. That's been somewhere between 13 percent and 16 percent of our GNP.

Chart VI
International Investment Comparison
1955-1985

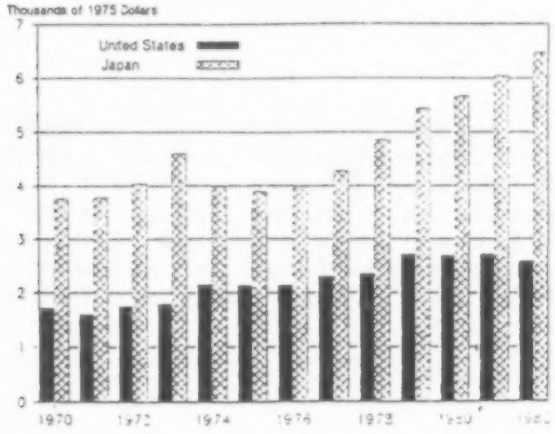


Source: International Monetary Fund

Our major competitors, the more industrialized countries, have consistently been investing a higher proportion of their GNP in plant and equipment over that period. I think the really interesting point about this chart is that when you consider a country like Korea, which in 1955 had very little manufacturing, and invested in plant and equipment at a lower rate than we did. But an enormous change has occurred since 1955. Much higher rates of capital investment have transformed Korea into a highly industrialized country.

The seventh chart shows investment/labor ratios. You see what has been happening over the period 1970 to 1982 regarding the investment per employee in manufacturing when you compare the United States and Japan.

Chart VII
Fixed Investment Per Employee in Manufacturing
United States vs. Japan, 1970-82



Source: OECD

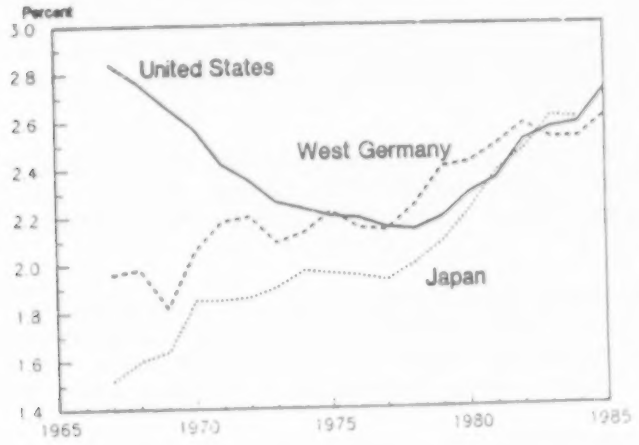
These data were taken from an earlier article which George Hatsopoulos wrote with Paul Krugman, and I'm presenting it in a slightly different way than in their article. But you can see that the rate of Japanese investment per employee in manufacturing over that period has been about twice as much as we have been investing per our manufacturing employees.

Indeed, when you look at a chart like this, I'm always surprised that we have done so well in terms of keeping up with Japanese competitors in manufacturing.

Finally, one other factor to take into account when we are considering savings and investment is that investment in capital is not only investment in plant and equipment, but it is also investment in R&D and in the development of new technologies. In this respect, our expenditure in R&D compared to our competitors is important.

Chart VIII shows that for the United States, total R&D as a percentage of GNP was very high compared to that of our competitors in the '60's. Subsequently, this ratio declined, but since mid-1975 has increased. We now spend about the same percentage of GNP on R&D as other countries.

Chart VIII
Total R&D Expenditures as a Percent
of Gross National Product by Country

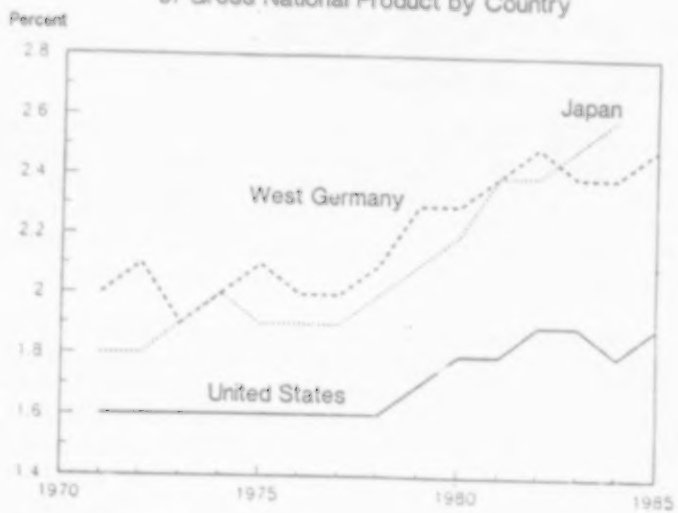


Source: National Science Foundation

One of the potential problems with our investment in R&D is shown in the ninth chart. A large part of our R&D

investment comes through military expenditures. When we compare R&D invested for civilian purposes, then our competitors have a significant advantage.

Chart IX
Civilian R&D Expenditures as a Percent of Gross National Product by Country



Source: National Science Foundation

This does not mean to say that part of the investment in R&D that we make for military purposes does not spin off commercial applications, but as many of you know, there is some debate about the extent to which the spinoff results in commercial innovations.

I mention these R&D points because it is important to think of investment and capital in broad terms, not only in plant and equipment, but also in science and technology, and in human capital.

Competitiveness can be defined as a comparison of unit costs of production, and these unit costs of production should include the unit cost of capital, the unit cost of labor as well as the unit cost of intermediate goods, such as materials.

From MAPI studies, we conclude that the United States is still the most productive economy. We're ahead of our competitors, meaning that we are ahead of our competitors in the level of productivity. But this is true only for the entire business sector, when you include agriculture, services, and transportation. But for manufacturing, we conclude the Japanese productivity level surpassed the U.S. level somewhere around 1979 to 1981.

Once our competitors have reached the level of productivity that we have, then all of the pressure is on the United States to reduce compensation costs. If we want to be a high-wage economy and have a high standard of living for our workers, we must surpass the level of productivity of all countries.

It is very dangerous to assume that we are still ahead in productivity. Countries like Korea and Taiwan are now highly competitive in some industries, with rapidly rising levels of productivity. Indeed, by the early 1980's Taiwan was supplying more of our imports than any other industrial European country except West Germany, and these imports were not confined to textiles and apparel. Much of the imports were in quite sophisticated machinery--both electrical and non-electrical machinery. This is the challenge and I would be happy to discuss a little later some of the specific policies that I think might help deal with our competitiveness problem.

Thank you.

MR. WATKINS: Further support for the seriousness of the dilemma. Our next speaker, Dr. Robert T. Green, has promised to be a bridge between the macro approach of this panel and the micro approach of this afternoon's panel. Dr. Green has been Professor of International Business and Marketing at the University of Texas at Austin since 1971.

He has conducted research and published numerous studies, articles and books which examine the determinants of import demand, various methods and approaches to the identification of export markets, and other aspects of export strategy and international trade.

DR. GREEN: Thank you. As Bob noted, I'm going to take us off in a little different direction than we have been going so far. My orientation as a business school professor is quite different than the orientation that characterizes a lot of the other participants in the panel. As a business school professor, I'm concerned with business. Here is where we reach the macro/micro bridge.

You will note from the title of my presentation one of the differences between myself and my colleagues. I am not nearly brave enough to talk about the idea of competitiveness by itself. You will note that I put a modifier in front of it.

I'm talking about export competitiveness and not competitiveness in general, but this would seem to be an appropriate topic for today's session, because of the continued ability of U.S. business to confound the experts with its continued aversion to exports. Despite the fact that U.S. goods should be more price competitive than ever before, especially during the past couple of years, U.S. exports have been disappointing to say the best.

In fact, they haven't improved nearly to the extent that people think that they should have, and last month's statistics showed that U.S. exports actually declined in value. And all this in the face of the fact that U.S. goods are priced so competitively.

A lot of people also think that we are looking at very short-term statistics and that we will soon see these figures turn around. Despite the economic logic behind this view, the monthly figures continue to defy that logic.

U.S. businesses' aversion to exports is well documented, and there are a lot of valid reasons given for it. U.S. firms are not export oriented. And this lack of export orientation

has been attributed to lack of international mentality on the part of U.S. businesses. They've never had to really compete in the international market. The domestic market was always there. It was large enough for them to expand into, so why go international, and so forth and so on.

What I am going to talk about today, and this is where information comes in and what makes this fit somewhat into the macro area, is how perhaps government could get more and better information to business in order to help improve export performance.

The first point I want to make is that international market data are scarce, and this is one fact that we have to realize. When you examine the reasons why U.S. business doesn't compete very effectively in terms of exports, there is not much information out there for them. This might not be a good excuse, because there may not be that much information for the Japanese either. Information, however, is relatively scarce on the international market as opposed to the domestic market. Both the public and private sectors provide an abundance of information on the domestic market that firms can go to in order to expand, to head into new markets or new products or whatever.

It is the government, however, that is almost the sole provider of information pertaining to international markets--particularly international export markets. The U.S. Government is the main collector of and serves as the main repository for this information. It collects international trade statistics and U.S. trade statistics. The government collects primary information through the network of commercial attaches abroad.

They also serve as a repository for trade information collected by other public agencies such as the United Nations. The main issue I am going to discuss here is, could this information be used more effectively in order to improve U.S. export competitiveness, and how.

I'm going to divide my presentation into two discrete parts. During the first part I am going to be talking about a particular technique that might be used for analyzing and presenting trade information in such a way that it could be increasingly useful to potential U.S. exporters. Then I'm going to go into a more general discussion of some of the issues surrounding the uses of the information and the manner in which such information might be disseminated for the optimal results.

Before I turn to the specific technique, I want to make some general points about information analysis and presentation. It should first be recognized that in order to be useful, information must possess certain qualities, some of which would seem completely self-evident and should go without saying except for the fact that they are so frequently violated. Among these qualities is that information, in order to be useful, must be timely, accurate, and relevant; these are all seemingly obvious, but all too frequently violated qualities.

Beyond these qualities, and a less well-recognized requisite for useful information, and a quality of information that is even more frequently violated, is that if you want information to be used by exporters (or by anybody for that matter), it must be presented in as concise a manner as possible. Parsimony is a rule when it comes to information if you want it to be used. If you give people too much information, they are probably not going to use it, and if they do use it, they will often use it wrongly.

So with those points in mind, I want to talk a little bit about the way that trade data, the limited data that exists, are frequently analyzed in order to try to provide information to businesses about export opportunities. Normally, two approaches are used to analyze trade data to give us this information. You look over time at the changes that have occurred in the absolute dollar value of products that are exported or the changes that have occurred in the absolute dollar value of markets for particular products, and you identify the most promising markets as being those markets that have shown the greatest absolute levels of growth.

The other way is to look at the same phenomenon but in a relative sense, in a percent change sense. You identify markets based on what markets have shown the fastest rates of growth, rather than absolute growth.

As most elementary statisticians know, you cannot rely on either of these methods individually to give you an accurate picture of where the markets actually exist. If you are to rely on either one exclusively, you are likely to be misled. For instance, if you look just at the absolute levels of changes that have occurred in an export market over time as a way of identifying potential export markets, you are going to almost invariably be led to the largest markets. The largest markets will show the largest absolute changes.

If a $10 billion market shows a 5 percent change, that's going to show up as one of the fastest growing markets, as opposed to a $500 million market that would show up as with a 10 percent change. And this is true even if inflation is 6 percent, and the larger market isn't even growing at the level of inflation.

On the other hand, if you look exclusively at rates of growth as a way of identifying potential markets or potential products for export, then what you are led to very frequently are small markets that have been growing very fast, partly because they have such a low base to start with. In looking through U.S. trade statistics I noticed that between two years in the '80's, U.S. exports of snow blowers to Saudi Arabia increased from less than $1,000 to $20,000. This is a phenomenal rate of growth, and a method that emphasizes growth rate would show this as perhaps a promising market. But who cares? The size of the market is trivial and it shouldn't even be in the set that is being analyzed.

It is therefore necessary to use these two methods together if you are going to get good information. But here is where you start violating the parsimony rule. All of a sudden you start looking at volumes and volumes of information of large absolute markets and high percentage-growth markets and so forth, and the individual decision-makers have to collate the information mentally in order to come up with potential markets. Sometimes there is just too much information to work with.

The method that I am going to talk about is something called shift-share analysis. Shift-share analysis is a straightforward type of statistical technique that can be used to overcome the problems that are involved in using either of the two methods described above, because it essentially combines them.

Shift-share analysis provides a concise way of analyzing and presenting trade information without the inherent biases of the other methods. What shift-share analysis does with respect to identifying potential export markets is rank markets based not on their absolute dollar growth or on their percentage growth, but rather in terms of which markets have shown the greatest increases in the share of overall exports they represent. Where did market share grow the most, rather than where did dollar volume grow the most or where was the rate of growth the most?

For example, suppose you are looking across 50 countries in order to spot which would be the best potential market for your goods. If you used shift-share, it would identify the nations among the 50 that have shown the largest positive change in market share for those products. In order to qualify for inclusion, these markets must be growing at levels above the average and they must also be relatively large markets or else the share of the overall market would be trivial to begin with.

I just want to briefly identify some of the primary ways that the technique might be used. Shift-share could be useful in identifying export market opportunities by looking at the markets that have shown the greatest overall growth in terms of market share that they have provided for exports of particular products. Shift-share could also be used to identify the products that have the greatest export potential by looking across several product categories and seeing which products are accounting for greater shares of U.S. exports or imports into a target market. Another way that shift-share can be employed is that you can use it to spot the source of competition within particular export markets. Where does the competition come from in these particular markets for your product?

This is basically what I want to talk about with respect to shift-share analysis. It is a technique that could represent an improved way of getting information to businesses that might assist them in improving their export performance

Now I want to go on to the last portion of my presentation and talk about some more general issues pertaining to information analysis, dissemination, and export competitiveness, the main thrust of my presentation.

Here once again, I'm playing the professor, and I'm dichotomizing methods of dissemination and uses of information in rather simplistic, but I hope meaningful ways. Assuming you accept the idea that improved dissemination of information is desirable and that it could enhance export competitiveness, then you have to decide how you are going to disseminate it, the uses that the information might be put to, and the types of information you want to disseminate.

Looking at the available methods of dissemination, I broadly categorize them as being either passive or active methods of dissemination. Passive methods would involve collecting the data, making the data available, and waiting for people to request it. Most information will have to be disseminated in this way, because there are not sufficient resources to do it any other way.

Active dissemination of information would employ dissemination techniques that involve an overt effort to get relevant information to business people or perhaps to policymakers in the area. In order to actively disseminate the information, you should examine the uses to which the information might be put. I've dichotomized such uses as being either reactive or proactive. Reactive uses involve putting information to use with regard to understanding problems that are facing you. Proactive uses of information refer to using information to identify potential markets rather than understanding problems.

Information of all these types, dissemination in all these ways, is necessary. One of the main points I want to make here, however, is that consideration might be given to providing the more active dissemination of more proactive types of information pertinent to export enhancement, and providing this information both to businesses and to relevant government groups.

There are many ways that you might go about this. The format that I have talked about here is a stepwise approach where you obviously can't make all information available to all people. So you would first--using shift-share analysis or some other technique in conjunction with industry experts--identify products for which the U.S. has export potential. This would, of course, require the identification of products for which world markets are growing at a very fast rate. Next, examine U.S. exports of those products and see which ones tend to be underrepresented in world markets. These products might be the ones that U.S. firms should be taking to the international market.

Thus, you first identify products with high export potential, then identify promising markets for those products, and then (this is where active dissemination comes in) go out and actively provide this information to relevant firms--firms that could use it and help them get into the exporting business. Provide them with the information. Perhaps provide them with assistance. What I am really advocating here is a form of targeting. Target U.S. businesses, U.S. industries that seem to have the best export potential (latent export potential might be a better term, given factors in international markets that U.S. businesses aren't taking advantage of). Take the information to them and help them get into exports.

MR. WATKINS: Thank you, Dr. Green. I think that is a possible prescription for a new program within the walls of this building.

What we would like to do now is to provide an opportunity for our panelists to comment on the presentations of one another and, most importantly, to allow time for comment and question from the audience. To begin the comments, Dr. Hatsopoulos, as first up, do you have comments on the other presentations?

DR. HATSOPOULOS: Well, as you've noticed, there was considerable agreement with the first three panelists that addressed pretty much the same issues in a little different way, and Dr. Green addressed another interesting, more microeconomical, management issue.

I do, however, want to make a comment on Dr. Makin's presentation, concerning the natural inclination of Americans to save. There is no question in my mind that if you did have an undisturbed economy without any subsidies of any kind, without any intervention, that the people themselves would decide what is more important. They would choose between today's consumption, their own consumption later, or even their children's future consumption for that matter. Based upon their choices, the market forces would come out with a discount rate comprised of the sum of all the tendencies of the people.

That discount rate could be smaller or larger than that of other countries. A study of pre-World War II would probably be very appropriate to make comparisons. I must say that right now we have a terrifically distorted economy and, therefore, I don't think we can reach any conclusions about people's long-term preferences.

Why is our economy distorted? In a normal free economy as I conceive it, the reward for postponing consumption should be equal to the cost of capital. Then there would be true neutrality or a level playing field.

But here there is a tremendous gap between the cost of capital and the reward for delayed consumption. The primary culprit is the tax system, but another, more recent factor has been the budget deficit. There are several enormous subsidies to consumption, the Federal deficit being the most recent one. We essentially give out money that the government doesn't have, and then borrow from abroad in order to subsidize consumption--either through Social Security, defense, various entitlements, etc.

There was a large subsidy for consumption in the 1970's as well. There were years in the 1970's when inflation interacted with the tax system so as to penalize anyone who deferred consumption. In other words, you were rewarded for consuming now, and received negative rewards for deferred consumption at a time when the cost of capital was 10 percent in real terms.

There are enormous distortions in the U.S. economy. I think that other countries, such as Japan, have more of a free market in spite of their industrial targeting policies. I believe that Japan would have done even better if they had even eliminated whatever distortions they have. The reason we suffer is because we have too many consumption subsidies which grossly distort the free market, not because the Japanese practice industrial targeting.

MR. WATKINS: Dr. Makin, do you wish to respond or to comment on other aspects of other presentations?

DR. MAKIN: I'll just continue along that line because I think it is a fruitful line to discuss. I commend your Puritan ethic, George. Suffering and consumption aren't things that necessarily go together in people's minds, but I know what you are saying.

One of the serious problems that we have in this country as far as encouraging saving and capital formation goes is again the tax treatment of the process. And as George pointed out, it was a fool in the 1970's who saved. If you bought some instrument that yielded six percent, you lost. If you bought a house, you won. One of the problems with American competitiveness probably is not unrelated to the fact that a very significant portion of our capital stock is in housing. Again, it's a good news/ bad news story. It's nice to have more square feet per person than any other country in the world.

On the other hand, that uses up capital that could otherwise be used to increase productivity. If I were to say what would be a modest change in the tax system that could encourage saving and capital formation, I would make a very simple suggestion. It would be to return to the proposal that the Treasury made in 1984 to index interest income and expense.

Right now all of interest expense is deductible and all of interest income is taxable. So from the point of view of the saver, if interest rates rise because of inflation and he's really getting no increased return, he gets taxed more.

Interest expense for consumers is fully deductible. Again, inflation is kind of--is definitely--a subsidy to consumption. So what you really want to do is have a tax system that does not change intertemporal choice as inflation rises; our system is one that says if you think inflation is going up, buy more now and borrow the money to do it. And, of course, we are enhancing that with re-named second mortgages--now called home equity loans--in response to the tax change which prohibited specific interest deductions.

The tax system can change the choice at the margin between consuming now and consuming later, and there are sensible ways to do that. Frankly, it's very hard to get that kind of an idea through Congress, because Congress registers what people want and, when asked, people don't want to consume less. So you've got a tough tension there between what we really ought to do (and we all say well, we really ought to do it) and what we are willing to do.

MR. WATKINS: Dr. McLennan, do you wish to comment?

DR. McLENNAN: Well, again, I would like to just reiterate what John has said. I think that the studies that I'm familiar with prior to the tax reform act showed that there was a substantial loss in output given the way that the mortgage interest deduction was treated in the tax court, and I think that while we have made some little progress there in the tax reform act, I still think the most sensible thing we could do is to put a cap on the deduction and then gradually let it become less important.

Politically this is a very tough thing to do. But that's where a lot of us put our money during the '70's and we're perhaps continuing to do that.

Secondly, we all agree we ought to reduce the Federal budget deficit. But within that, you have to make hard choices--even at the risk that it's going to affect some politicians' careers. But we're now in the process of increasing very substantially the proportion of the GNP we spend on health care.

It has risen enormously. In a political year, every politician--both in the Administration and on the Hill--is adding their pet program for catastrophic care for lots of these things; we are estimating now that by the year 2000, I think, we'll be spending 15 percent of the GNP on health care.

These are all desirable goals and I wish we had better catastrophic health protection. But we spend more of our GNP on health care than any other country in the world. Surely we can reallocate some of these resources, because, remember, we can't improve the educational resource system and spend more resources on that and more on the environment and more in health care and more in national security. We've got to make some tough choices, and I think that's one of the messages we have to get in reducing the deficit.

One area where I may disagree a little bit with John is in the area of R&D. All of the studies show that the private rate of return for R&D is very, very high. The businessmen I talk to, many of them don't believe the figures that come out of economic studies which show a 25 or 30 percent rate of return.

Most of them don't invest a great deal in R&D. But those who do invest find these rates are very high. The other thing is that studies show that the social return from the investment in R&D is even higher. I think this makes a case for the government doing something directly in that particular area. If we could have a better incentive, vis-a-vis the tax code, I think that could be justified provided we're prepared to say where we are going to meet the revenue loss somewhere else.

MR. WATKINS: Dr. Green?

DR. GREEN: Well, I'll play the deviant once again, as the business school professor, and I will raise a point that I'm really not qualified to address as well as a lot of you are. But in our discussions today, I have heard a lot of people talking about how economic policy can be used as a way of dealing with U.S. competitiveness. I've heard nothing about industrial policy.

Yes, savings rates, et cetera, will impinge on the performance of business, but one sometimes hears that U.S. competitiveness is at least partly a function of the fact that there is no integrated or coherent industrial policy and that many of our major competitors do have such a policy.

You referred to targeting before and the sunrise and sunset industries and so forth. Our industrial policy, at least in my eyes, tends to be more reactive. We react to situations rather than being proactive, where we use it to plan for the future. So the question I raise is to what extent does this effect U.S. competitiveness?

DR. HATSOPOULOS: May I say I can't very well speak for the other two members, although I can offer a guess. My guess is that all three of us think that industrial policy or targeting--other than providing the proper environment and letting the private sector select where investment has to be made and identifying opportunities for profits--is not going to be effective.

I happen to believe that the specific industry targeting in Japan has not been very effective, but the broader measures targeting production versus consumption have worked well.

MR. WATKINS: Dr. Makin?

DR. MAKIN: Well, I think I agree with George's point. I would say that Japan, through various means, is probably quite close to a consumption tax. That is, the way interest income and expense is treated is such that in effect Japan is not taxing saving twice as we do. Japan is really being more passive on the choice and, as a result, is getting a higher saving rate.

To be honest, I don't know what industrial policy means. I have seen numerous discussions of it by Robert Reich and others, and I have seen and I know of no evidence beyond anecdotal evidence to suggest that it has any impact whatsoever on the ability to compete. So I would be very reluctant to sort of undertake a program that sounds good. I mean the notion is Japan, Inc. and they plan and they target and so on.

I've spent a great deal of time in Japan and I am unaware of a master plan that targets various industries. The implicit assumption is that there'll be a roomful of people who run industrial policy who can allocate capital better than people who are trying to make money. But, again, the evidence on that is not very strong.

MR. WATKINS: I would like to be able to open this up to the audience to participate in this exchange, but maybe a brief response from you, Dr. Green.

DR. GREEN: Well, just to say, and once again, this is taking a business perspective, and that is that the people who trade computers would probably argue.

DR. HATSOPOULOS: An Wang won't argue; I know that he believes in a free market. He argues with the targeting of Japan against his industry, but he won't argue that our overall economy would be better off by having an industrial policy. That's what I meant.

DR. GREEN: But if other countries are doing this, can we afford not to?

DR. McLENNAN: Well, I think there is some sense in that they have targeted vis-a-vis their trade policy to prevent our products entering there. I think that's one case where I think the Japanese are...

DR. MAKIN: That's a different kind of targeting. If they've got unfair trade practices, deal with it that way.

MR. WATKINS: I would like to have opportunities for those in the audience to participate.

QUESTIONER: To pick up on what Bob Green started here and the attention that the three economists have given to capital formation, through the use of indexes, options and the rash of mergers and acquisitions, more than a few people have characterized our capital markets on Wall Street as an Atlantic City casino, a big one. What are your feelings on that? Does that affect the question?

DR. MAKIN: I'll take a crack at it, although I don't think our capital markets are any more of a casino...let's say, again, when we are talking about competitiveness, everything is relative. I think perhaps the most casino-like capital market right now is in Tokyo, where price/earnings multiples are running 3 times the multiples here in the United States.

Capital markets have to evaluate prospective streams of earnings, and to the extent that they do that reasonably well, I think they are doing the job.

I think one of the things that we have seen over the past five years is a fairly active takeover phenomenon that--and I'd be interested in hearing comments of others on this, but my perception is that some managers have got a little bit lazy with regard to internal cash flow and have become cash rich in a way that it is very attractive to buy up the assets of corporations.

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DR. HATSOPOULOS: I agree with John that the capital markets are right now very bullish in Japan. In fact, their price-to-earnings ratios are three times our own. But setting that aside, we find that the structure of the capital markets in this country has begun to have an adverse effect on the time horizon of U.S. corporations. That is not the case in Japan.

There is growing concern that with the tax-free pension funds becoming the major institutions for investment in corporate activities, and the pressure upon managers to perform on a quarterly basis, our industry has been forced to concentrate on quarterly results without regard for the long-term consequences. I've seen cases where money managers are so panicky to beat the other money managers in achieving the highest return for their pension fund customers that they will sell a company's stock even though they know that the company's earnings have declined because that company made a tremendous investment in the future. The money managers know the truth--that they are caught in a bind. So we have certain problems in our financial markets that affect the time horizon of investment decisions. But in Japan, are they really doing a better job?

As far as takeovers are concerned, I think that is a serious problem. Takeovers do have some benefits because they keep management more on their toes. But there is an optimum, and I think takeover activity has gone beyond what is optimal. Right now I see a lot of management deferring good long-term investments because they are too scared about takeovers. There is always an optimum to everything, and you can overdo it or underdo it.

QUESTIONER: For Professor Green. I would like to say that the Department of Commerce does produce market share reports. We do this on just about every country in the world. It gets a little bit sparse when you get into sub-Saharan Africa--maybe 14 out of 44 countries. It's organized by SITC number and covers a 3-year period. It is disseminated by advertising in Business America, our magazine. I don't know where it goes beyond that, but it is very well done and it is produced by a single staffer.

QUESTIONER: I would like to contribute a different view of what has been discussed here in terms of competitiveness. We've heard a great deal mentioned about capability to export. I have not heard anything about willingness to export. Let me elaborate. After World War II, the first portion, let's say,

the '50's, we were exporting primarily as foreign assistance exports. Once U.S. multinational corporations started their expansion abroad, a large portion of our exports consisted of ham and cheese: imports to their subsidiaries abroad from the United States--it was a captured market.

If we go historically into the situation as to why our exports are so, let's say, less than they could be, consider that the percentage of exports of our GNP was less than four percent in the '50's, hardly an inducement for our domestic corporations to seek outside markets because the domestic market was sufficiently large and fast-expanding. This was mentioned here, by the way.

What has not been mentioned is that foreign countries, on average, have their export factors to GNP one-fifth to a half of their national economy. They have no choice. They must export. My observations in the 1960's and 1970's were that you could not convince an American manufacturer to bother with exports, whereas foreign manufacturers were designing goods exclusively for the export market and especially for North American markets. That made them quite successful and in Japan, the idea of designing some products exclusively for the American consumers has been phenomenal.

DR. GREEN: I tend to agree with everything you say, but for Japan to produce for the U.S. market is a different story than the U.S. to produce for the Japanese market. Of course, when you've got a relatively open market with 200 million relatively wealthy consumers, you can focus on that market.

So I think U.S. firms take a bum rap on that deal. But I agree very strongly that U.S. exporters did not want to export. Why should they export in the first place if they had a domestic market to go to that was very large and that they could expand into. They don't have much of an international orientation in general, partly for historical and geographical reasons, partly though for educational reasons. What I was trying to advocate, is to actively seek out potential exporters, push them into--and maybe even assist them--in exporting.

DR. MAKIN: When I was a teacher, I always felt that fear was a great teacher--fear of the exam, that is. But in the case of our exporters, I don't think they have to be pushed, and I guess I would quarrel a little bit with that characterization--but partly because I spent a lot of time in Seattle, where Boeing airplanes are produced, and I find that they have done pretty well around the world.

In fact, Washington state apples, grain--our agricultural producers were very successful. We hampered them seriously in the late 1970's by trying to turn agricultural exports into a political weapon and thereby reducing the reliability of supply.

But if in the past some American producers have been reluctant to export, I think that period is behind us now. I think that most American managements are well aware of the need to be active participants in world markets and, of course, it is not all exports. I mean we also have American companies that have to compete with imports. The import-competing sector is just as much the traded good sector as the export sector.

I have the feeling that American management won't have to be pushed. I think they are very anxious to become successful exporters, because that's what it is going to take to continue to grow.

I would also add that they are becoming very innovative. One of the ways we import labor is by importing assembled components, notwithstanding Mr. Iaccoca's remarks about American cars. I mean they are basically imported Korean labor assembled with an American shell over it and with Chrysler written on it.

One of the major ways to compete internationally today is through the relocation of manufacturing and sourcing activities. Some of our most competitive companies are companies that locate where they can most effectively--that is, most inexpensively--produce. I think of companies like Motorola, IBM, Eastman Kodak, et. al., which are multinationals that may not import anything from sources in the U.S.

Eastman Kodak has an operation based in Japan that sources from the Pacific Basin and is working and achieving 20 percent penetration of the domestic photographic equipment market. That's not management that needs to be pushed. They are moving very rapidly, ahead of the crew.

QUESTIONER: I found that last answer and much of this discussion in general sort of a sample of the variation between very high-level generality and very anecdotal, but that's pretty useless when you look at the the question of competitiveness on a national level. For example, in another presentation, I've heard Allen Lenz say that we can't solve our competitiveness problem until we look at the $60 billion auto deficit. Well, no one has mentioned that today--it's virtually not been mentioned this morning, that number.

Similarly, we haven't heard any real emphasis on capital goods. In 1981 our capital goods surplus of $50 billion covered deficits in automotive and consumer goods. Today we are down around the balance point in capital goods. So I mean, we have not addressed this here this morning. That's not an appeal for industrial policy, but you just can't gloss over what is happening in the major industrial sectors, and say that well, a few Hondas are being exported from the United States, a few Chrysler cars are being sent to Japan, a couple of Maine shoe manufacturers export their shoes all around the world. The problem really isn't one of steel and textiles. Yeah, Boeing still competes in aircraft and they are very good. We are roughly at the balance point in computers. A deficit in telecommunications--depending on how you measure it, it is somewhere between $6 and $15 billion dollars. You just cannot ignore these major sectoral developments in our highest and most competitive industries and pretend to talk about the issue or the subject of competitiveness.

MR. WATKINS: I would have to comment on that, being responsible here in Commerce for the automotive and consumer goods industries. I think that clearly we are addressing that and I believe the panelists have addressed that competitiveness in export markets is part of the competitiveness equation.

I think that Dr. Green had indicated that his approach took one aspect of the overall competitiveness equation. I think I would concur with Dr. Makin in that the automotive industry is reacting and addressing competitiveness pressures by the kinds of actions that the Chrysler Corporation is undertaking, and other domestic manufacturers are doing that.

Competitiveness is being played out by searching worldwide for low-cost, high-quality components. It's also being played out by restoring the capital equipment within the automotive industry by the traditional U.S. manufacturers, as well as by the new entrants--the so-called transplants--which are improving the capital stock of the country.

These are employing Americans. They are adding U.S. value-added, but I think in large measure it is a reaction to the realities of international competition in the automotive industry. I think in a similar regard this is being played out by our consumer goods industries as well, footwear prominent among them. It may not lead to the resurgence of significant domestic manufacture of footwear. I'm not certain that anyone would want or expect that to happen, but clearly there is a response to competitive pressures.

Others on the panel? Dr. McLennan.

DR. McLENNAN: I think that you are absolutely right in the sense that we ought not to forget exports, but as I recall the statistics, while our exports have not grown, the major problem is our imports have grown.

Again, I think that none of us would feel very confident as to how you could design a policy industry by industry, but the automobile industry is clearly a major part of our competitiveness problem. Whether we deal with it by outsourcing and offshore assembly, and that can help to a significant extent, but I think what we have at least learned from the competition and the fear that has been generated, to use John's term, is that we really have to think about putting much more innovation into the kinds of components that go into making up an automobile, and do much more research and development.

We are not only being beaten in the price, but sometimes by the ability of foreign competitors, once they have the ability to use the most advanced technologies as fast as we have traditionally done it in the past.

DR. MAKIN: A specific example. Last week or two weeks ago, amid great fanfare General Motors introduced what they called a four-by-four, which is a four-valve-per-cylinder engine. I'm sure it's a fine engine. They are going to make it available as an option in the future.

It's been available on Toyotas for two years. It's been available on BMWs for one year. We are catching up, but it is clear that one of the problems we have with automobile competitiveness, really two problems, labor costs and the fact that after 1973 when long assembly lines that were designed to produce large V-8's for 4,000 pound cars were very reluctantly abandoned. They have been abandoned now, but it is going to take time to remedy the ground we lost while we were hoping that the price of oil would go back down.

MR. WATKINS: To continue the theme of fear, I think that probably some of us are fearful that we might not have an opportunity to eat before the next panel begins. I would certainly like to thank the distinguished members of our panel for their contribution and the attention, comments and questions of the audience, and look forward to seeing you back after lunch for the resumption of our conference at 2:30.

Panel Three: Improving Competitiveness of U.S. Business Through its Own Efforts

Chairman:

Michael R. Czinkota, Ph.D.
Deputy Assistant Secretary
for Trade Information and Analysis
International Trade Administration
U.S. Department of Commerce

Panelists:

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Lansing Felker
Director
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Bernard J. LaLonde, Ph.D.
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William Lilley, III, Ph.D.
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John Ryans, Ph.D.
Professor of Marketing
Graduate School of Management
Kent State University
Kent, Ohio

Note: Panelists were invited to submit formal studies for the conference or for inclusion in the published proceedings. Of the thirteen panelists, Jeffrey Arpan and John Ryans opted to submit formal papers in lieu of their spoken remarks made at the conference on September 22, 1987.

DR. CZINKOTA: I'd like to welcome you back to the afternoon segment of our conference, especially those of you who are just returning from lunch. I promise you this will be an interesting and exciting segment, so have no fear that you might fall asleep or anything like that. We'll try to be as stimulating as possible.

As you know, our morning panels focused on competitiveness in a very broad sense. We looked first at definition and measurement and then we looked at macro issues in terms of what can government do to enhance U.S. competitiveness.

Our panelists this afternoon will focus on competitiveness from a micro perspective, looking at it from the level of the firm. This is, indeed, an extremely important topic of discussion, since we can only be competitive at home or abroad if individual companies adjust to the realities and the rigors of the global marketplace.

And it was most eloquently stated in his last testimony by our late Secretary Malcolm Baldridge, who noted that competitiveness implies a need for a cooperative effort. He stated that we are under no illusion that further government involvement in the private sector could be a panacea for improving our competitiveness.

In fact, many of our proposals are based on the need to further reduce government's role in private sector affairs. In essence, what we in government have to seek is a partnership, and that, of course, is the issue addressed by this afternoon panel.

I'm very pleased that on this panel we have a very fine group of scholars and business executives to discuss the topic, "Improving the Competitiveness of U.S. Business Through Its Own Efforts." Through their research, consulting and experience, these gentlemen are eminently qualified to offer us their views on this important subject.

Let me introduce Lansing Felker, who is currently the Director of the Industrial Technology Partnership Program in the Office of Productivity, Technology and Innovation, right here at the U.S. Department of Commerce.

Previously, Mr. Felker worked as a budget examiner in the military division of the Office of Management and Budget, as an international logistics negotiator in the Office of the Secretary of Defense, where he focused on the export of aerospace equipment, as an international trade specialist in the Department of Commerce, and as an investment advisor on Wall Street. Mr. Felker received his BA and MA from the University of Chicago. Mr. Felker.

MR. FELKER: Thank you, Mike. In view of the short time today, I will resist the urge to go through the menu of things that firms can do to become more competitive and will instead focus on just one thing. But as I walked down here I was collared in the hall by one of our folks in the metric program division who said: "Tell them that they can't increase exports if they don't convert to metric." So you have been told.

My interest is largely technological innovation because, while we certainly don't ignore productivity matters, our view has always been if you don't have the technology, you're not in the game. Once you are in the game, productivity will determine how well you do and how long you stay in it.

I would like to talk briefly today about corporate partnering for R&D as a resource strategy. Let me set the problem this way. Technological change has speeded up at a tremendous rate. As a result, product life cycles are collapsing. The result is that there is a mismatch between the innovation process and product life cycles. The innovation process takes about seven to 10 years to move an idea from the laboratory, where it starts out as an invention, into commercialization--production and marketing. The life cycles of products have been rapidly diminishing from what at the turn of the century could be measured in decades to three to five years in the fast-moving areas like electronics.

In the worst case--say electronics with three to five year product life cycles, compared to a seven to 10 year innovation process cycle--to be competitive many of our firms have to manage two and even three generations of product lines concurrently.

I'm not talking about variations on products, but about product lines that actually supplant or make obsolete the previous line. Now, of course, many industries are not quite that bad, but even in those that move a little more slowly, the firms usually have to manage at least two generations simultaneously to stay competitive.

This represents a challenge to the firms in both their strategic planning and in their resources. First, the strategic planning. Again, there is a mismatch. If our firms are planning on the basis of the next quarterly report, which is certainly the worst but all too common case, and the technology is being developed on a seven to 10 year cycle, then obviously that is a mismatch.

Also, within the firms there is often a disconnect between the business planners and the R&D departments, which

reflects the three month view on the one hand and seven to 10 years on the other hand. The technology people often don't talk to the business planners, even within firms.

We are used to thinking of technology push as being represented by the Federal labs and the universities and market pull by the firms. We know that those two don't often connect. But the technology push culture extends into the R&D parts of the firm. The same gap that exists between our laboratory system and our firms exists within the firm between the R&D people and the business planners.

The strategic planning needs and the resource needs are an interdependent problem. You obviously can't develop the technology you will need if you don't know what you will need. And if your strategic planning doesn't tell you something about what business you are going to be in five to 10 years from now, then clearly it is going to be very difficult for you to develop the technology for the products that you are going to require at that time.

A friend of ours, who has been in the financing of R&D ventures for a long time, has gone into business for himself. He came back with a very sad story. He was looking for five firms to put up $10 million each which he was going to manage for them as an acquisition portfolio. He was going to acquire for them new technology, new firms, and new products.

In other words, he was going to act as a headhunter for these firms to acquire the technology that they were going to need to fulfill their technology strategy. He pointed out that in the past, many firms invested in venture capital funds as a way of maintaining a "window on new technology." So he asked these people: "Does this tactic work for you? Do you find new firms, new technologies that enhance your technology strategy?" They said, "No." Then he said, "Do you have a technology strategy?" And they said, "No."

So he realized that his first job, if he was going to sell firms the idea that he was going to be their acquirer of new technology, was to help the firm develop its technology strategy.

Since the technology strategy is a derivative of market strategy (i.e., what business the firm sees itself in), this is a creative and traumatic process for many.

The other part of the technology challenge is to the resources of the firm. If a firm has to develop concurrently two or three generations of technology, it's doubled or tripled its costs. That cost increase is exacerbated by two additional factors.

First, for a firm to stay in business today and be competitive, it can't just deal with the technologies most immediately concerned with its own product. It has to also deal with related generic technologies like materials or process technology. It has to worry about "left field" technologies, things that are going to come in and supplant its products based on a completely new technology.

The copper wire manufacturers, for example, until a year or so ago were not even aware that there was such a thing as fiber optics and that it had anything to do with the copper wire business, because they were in the copper wire business, not in the data transmission business.

Second, in addition to the expense of staying abreast of related technologies, our industry structure in the United States usually is fragmented--it has many firms in a given field. Take the case of semiconductors. Japan has a handful of firms, and those few Japanese firms do a lot of collaborating. They try to do as many things together as they can.

In the United States, I am told we have 128 firms, 40 major and the rest smaller. Now, how can 128 or even 40 firms, an order of magnitude more than the Japanese, operating individually possibly have enough market share and, therefore, enough retained earnings to fund an R&D budget which is going to keep them current and in that business? As a matter of fact, one wonders if they had the money, would there be enough scientists and engineers to run 40 to 128 redundant R&D programs in the same area.

When an industry is that redundant, what oftentimes happens is there are 128 R&D programs each going from kindergarten to the third grade, with none achieving the graduate level, much less a Ph.D. Few can reach a "critical mass" individually. The effect of these technology factors is to raise the "scale of the game" for firms which wish to stay competitive.

There is another issue in resource strategy that I think I should mention because it may be the most critical need for our firms--the production capability to bring new products to the market in mass production rapidly. If a product life cycle is three to five years and it is going to take a firm two or three years to ramp up to full production, the firm has lost the major part of the window of opportunity for that particular product. We believe that investment in flexible computer integrated manufacturing is critical for competitiveness. Firms have to be able to shift product lines very quickly.

Now, the conclusion from all of this is that it is increasingly difficult to go it alone. Corporate partnering, or cooperation of some kind, is a solution to this resource challenge.

I'm going to talk primarily about cooperative R&D because it is a visible answer to the resource demands of technology, and because we work a great deal with firms in that area. In 1982 we initiated legislation easing the antitrust rules concerning cooperative R&D. That resulted in the National Cooperative Research Act of 1984, which had three major provisions which help cooperative ventures that have been sued by a third party. First, it detreblizes damages. In other words, if a cooperative is sued by a third party and the ruling goes against it, it is liable only for actual damages, not treble damages.

Second, the new law clarified that the rule of reason, a fairly broad basis for defense, was applicable in such cases. Finally, it had an interesting provision that said that if the court deemed that the suit had been brought in bad faith or frivolously, it could assign the legal costs to a losing plaintiff. This law removed the incentive to sue which had existed in the past.

Since this act went into effect in January of 1985, 66 consortia have sought its protections by registering with the Justice Department and the FTC. That registration constitutes disclosure. It does not consitute a ruling. It simply insures that if the consortium is sued, it will have the protections of the law, for R&D activities through the prototype stage.

The rate of formation of these ventures is fairly rapid. Just in the first nine months of this year, we have worked with over 20 organizations that are thinking of starting consortia. That's probably just the tip of the iceberg, because we certainly don't talk to them all.

There has been cooperative R&D for a long time, but these new consortia represent what I believe is a radical departure from previous jointly-funded R&D arrangements. First of all, they are integrated. They tend to bridge the gap between technology push and market pull that we talked about.

Second, they tend to be strategic. They force the firms which are members of these consortia, or in some cases firms that are in the industry in which a consortium forms, to think about their strategic planning. If competitors establish a

five to seven year research program, that has to make each firm think about where they want to be as an organization in five to seven years, where their industry is going, and what kind of business they want to be in.

So there is a very strong strategic emphasis in these new consortia since they often involve both technical and planning personnel, as opposed to the old ones, which were more a dialogue among technicians.

Finally, and this feature I think is very unusual, these consortia represent "cooperation for competitiveness," not just the creation of technology for its own sake. Most of them are actually designed, sold, and formed with the idea of increasing competitiveness.

I propose that these consortia are only one manifestation of the emergence of something that I have called resource strategies on the part of the participating firms, even when the firms themselves are not initially clear on that point.

Another manifestation of resource strategies is the dramatic increase in corporate partnering activity in general. And I ought to mention one dramatic initiative. The President has announced, as part of his program on superconductivity, his intention to propose legislation to the National Cooperative Research Act to extend its protections to joint manufacturing. I suggest that that is a very important additional change to the antitrust laws that we definitely need.

This new cooperative approach is changing our existing corporate culture and many of our firms are understandably ambivalent about it. We have a tradition of being individualistic, of going it alone, of self-sufficiency, and this shift to learning to cooperate with competitors represents a very, very important and difficult change in the mentality of our business leaders. Cooperating for competitiveness has always been a contradiction in terms for our industry throughout our history. But today it is also becoming a necessity. I suggest it is becoming a reality.

DR. CZINKOTA: Thank you very much for those insightful comments.

Our next speaker is Dr. Bernard LaLonde, who is currently the Mason Professor of Transportation and Logistics in the College of Business Administration at the Ohio State University, where he has been on the faculty since 1969.

His area of concentration in the last decade has been service industries and service performance in U.S. industries, so I anticipate that he will disprove the notion of one of our morning speakers, who emphasized that he believed that there would not be a mention of the word service throughout the day. Even if he doesn't do it, I've mentioned the word now twice, so there is some representation here.

Dr. LaLonde has also taught and conducted research at Michigan State University and the University of Colorado, and spent approximately three years with the Ford Motor Company, where he was on the staff of the Vice President of Sales and Advertising.

He received his BA from the University of Notre Dame and an MBA from the University of Detroit, and a Ph.D. from Michigan State University.

He has consulted with over 40 of the Fortune 500 companies, as well as the Departments of Defense and Transportation and the State of Ohio. Not on his bio which was supplied to me is the following fact, which I just happened to read a short time ago. In a survey of marketing educators in the United States, trying to analyze their productivity in terms of producing Ph.D. students, Dr. LaLonde in the past 15 years ranks in the top three.

Now, that tells us about his productivity. In terms of quality, that doesn't say much, of course, but we're fortunate here, namely that I have firsthand knowledge of some of his Ph.D. students, and I can assure you some of them have done rather well. So I am pleased to have Dr. LaLonde here today.

DR. LaLONDE: Thank you, Michael, for that nice introduction. It's a pleasure to join you this afternoon, although I must confess I have a bit of the same problem that Jeff suggested--and I have spent the last year on a sabbatical. "Sabbatical" is that delightful practice we have in academia of taking a year off now and then. I have been off since last January 1, and don't go back into the classroom until next January 1.

Therein lies my problem. I have spent the last year studying customer service. We've looked at 350 companies in the United States, trying to determine, in terms of customer service, how they interact with one another. A very important part of what we were looking at was their competitiveness. Do they think they can be competitive? Can they use services or customer service (the non-product relationship with the buyer) in order to differentiate their product in a strategic way?

We've compiled about 90 pages of tables and I have to somehow share that information with you in 15 minutes or so. Of course, the other part of my problem is that professors are normally programmed to talk for a 48-minute class-period. It is difficult to get away from old habits.

No one has told a story today, and I will offer one with some amount of trepidation given the time level and the convention. However, I was thinking about competitiveness, and there is a story about two good old Buckeyes who get a jug of whisky and head off into the woods. As the level of the whisky jug gets lower and lower, they start hooting and hollering and just raising all kinds of cain. They awaken a bear that's sleeping in a berry patch across the hollow.

The bear stands up, looks around at these two yahoos making all the noise, and starts across the valley towards them. The one guy very casually leans down, pulls up his socks, and ties the laces on his running shoes. His friend is watching him tie his laces, taking all this time, while the bear is charging down on them.

The friend shakes his head and says, "You know, you can't outrun that bear." And the first guy says, "I don't have to. I only have to outrun you."

There is a moral in that story when we're talking about competitiveness. You really don't have to be the very best, you just have to be a world-class competitor in the process. I think sometimes we lose sight of that.

I'd like to give you a definition of what competitiveness is, because it kind of conditions where I am going in my remarks today. It is the capacity to profitably produce, market and distribute a world-class product or service in head-to-head competition anywhere in the world where there is free market access.

I have found that there is a lot of confusion about definitions. There's really a lot of disagreement on the state of current and future U.S. competitiveness. There is even some confusion, and perhaps disagreement, about the causes, the consequences, and the cures for competitiveness. Our studies include just 350 companies: not all of the 400,000 manufacturing business enterprises in the United States by a long shot. Our sample is overrepresented in the food, chemical, and pharmaceutical industries. It's also overrepresented by Fortune 1000 companies, so it is not a typical sample.

In fact, we position it as kind of a cutting edge sample. These are the companies that are doing some exciting things, and perhaps some exciting things in the area of competitiveness.

There are some people out there who think they can be competitive--let me give you some hard data. I have just culled a few things out of our 90 pages of tables that perhaps most directly bear on this question of competitiveness. We asked vice presidential level, senior executive people for a forecast of their inventory turnover today, 1990 and 1995. While the response varied by industry (we have eight industry categories), the average was six today, and eight expected by 1990. That's a 33-1/3 percent increase in inventory utilization, an asset that represents 35 to 55 percent of the current assets of most American manufacturers.

By 1995 they expect to get it up to 10. That's going from six to 10 and looking at a 66 percent increase in terms of asset productivity. In terms of exports, they told us that today they are exporting 6.8 percent of their products, raw material. In 1990 they think they can go to 8.2 percent and in 1995, to 10.1 percent.

The percentage of finished goods exported today is 11.1. By 1990 it is expected to be 12.9, and by 1995, 14.4 percent. Somebody out there thinks they can be competitive.

We asked respondents about just-in-time. Just-in-time is a strategy; it's a form of strategic partnering that allows you to lower inventory, and that builds on quality of product and quality of service.

We asked what percentage of shipments are going to be just-in-time. Is this a partnership with vendors and with customers? They said outbound today is 19 percent. By 1990 it is going to be 27 percent. By 1995 it will be 32 percent. One out of three shipments will be just-in-time.

But it is not going to stop there. Inbound, 17 percent today from our vendors. Outbound, 27 percent--not quite a doubling--and outbound in 1995, 35 percent in the process.

So we're going to redefine our relationship in the supply chain, and manage it more effectively. How about technology? EDI--electronic data interchange, communicating with our vendors and our customers electronically. What is going to happen there?

Outbound, 22 percent today of orders are electronic. By 1990, 39 percent, almost a doubling. By 1995, 55 percent of the orders, one out of two, will be electronically generated in the U.S.

Bar coding provides the ability to track products through the entire supply chain, globally if necessary. Today, 19 of shipments outbound are bar-coded. By 1990, 49 percent will be bar-coded. By 1995, 67 percent will be bar-coded. Two-thirds of the products flowing in commerce in the United States will be tracked electronically in the system.

It seems to me what the respondents were telling us is that they compete in a number of different ways: asset productivity (the ability to use assets effectively in the business); strategic partnering; just-in-time; global supply chains; managing with partners; sharing capital; sharing research with partners; and competing nationally and internationally.

Furthermore, using technology effectively, applying the latest level of technology, and developing global markets are also ways of competing. This is perhaps a simplistic approach to competitiveness, but what we did, in a sense, was to "ask the person who owns one" by surveying cutting edge firms. In terms of our 350 respondents, the answer to the question, "Can you compete?" is yes.

We explored the public policy issues, the private initiatives, and the lessons companies have learned through competitive business practice. For instance, we visited L.L. Bean, and asked how they ship 100,000 shipments in one day. That's a world-class pile of shipments, 100,000 shipments in one day around Christmas. We asked what kind of technology do they use, and whether anybody in the world does better.

We asked Federal Express how they can guarantee delivery of packages by 10:30 in the morning. What kind of information technology do they use? How do they use bar-coding to do that? How do they capture and transmit the information? How do they use technology to differentiate their service? Because anybody can buy trucks, anybody can buy airplanes. But how do you differentiate your service? And so we went out and talked to people and spent several days with them and tried to figure how best practice is accomplished.

When we got all done, we said, well, what were the lessons learned? I was reflecting on those lessons for our discussion here today, and four main points come to mind: cross-fertilization of knowledge; export knowledge; quality of product and service; and corporate culture.

We can find people who know how to get things done. I think really the question is somehow to foster cross-fertilization in mobilizing and spreading that knowledge. Some of our research has suggested that peer learning is very important. That is, companies find other companies the most believable sources of information.

How do we cross-fertilize? There are people out there that know how to be competitive, or at least they think they know how to be competitive according to our findings. How do we mobilize that great resource and spread it? How do we spread it to smaller companies and different kinds of companies? A term that is becoming common in this area of competitiveness is "best practice." L.L. Bean probably has best practice in terms of shipping small shipments or answering the telephone. How do we migrate that best practice to other kinds of companies that can use it to become more competitive?

A second area, and one that several earlier speakers have alluded to, is export knowledge. A survey done by one of the distribution magazines asked a random sample of executives from fairly large companies: "What do you know about exporting in your company?" Fifty-seven percent of the people answered that the knowledge that they had in their company was either sadly lacking or no worse than other U.S. companies. That's a sorry indictment about the level of knowledge--we have to raise this level of awareness somehow.

People aren't even trying out there. People don't know what can be done. I think a third issue is the issue of quality in terms of product and services. The U.S. system frequently fixes quality downstream. In fact, one study I saw recently stated that it costs eight times as much to send out the wrong order as to send out the right order in the first place.

If you let the wrong order get out the factory door, in terms of customer service, you create a dissatisfied customer. If you let it go five or six or 8,000 miles, it is even tougher to fix. It's probably 18 times as much to ship out the wrong order globally as it is domestically.

We have to get concerned with doing things right, not fixing the problem after an order has gone out. A lot of this stuff is common sense. How many times does a U.S. company count or check a tire from the time it hits the door until the time it gets on the automobile?

Due to profit center accounting, the guy on the dock wants to make sure the trucker hasn't somehow taken a few tires or damaged a few tires in transit. So the dock foreman counts the tires and checks them. Then, of course, the warehouseman wants to make sure that the dock supervisor is accurate, because now the dock supervisor might have kept a couple of tires or counted them wrong or something. Then, of course, they go into a warehouse and then they go out of the warehouse and onto the production line.

Anyway, the answer to the question is eight times. From the time a tire hits the dock until the time it is on the car, it is counted or checked for quality eight times in the U.S. factory.

Do you know how many times it is counted or checked for quality in a Japanese factory? Zero. They say to vendors, "We're in the same business." Now, when I say common sense, when you are paying somebody $25 an hour on fringe to count and check tires, you've got to expect a difference in manufacturing costs in that particular process.

The other thing that happens in a Japanese factory is the tire is delivered 100 feet from where it is put on the automobile. It doesn't go into a warehouse and out of a warehouse and so on. We design our factories around the process. So some of the things we do in terms of quality in both products and service don't make a whole lot of sense. We have a lot of learning to do in that particular area. I think we are started down the right road.

A fourth area concerns the need to change some culture. I think there are a lot of people out there who don't think we can compete and a lot of people who are saying the sky is falling! the sky is falling! Maybe it is in some industries. Maybe I am looking at the world through rose-colored glasses. But I think what we have to do is think about building an esprit, building a can-do kind of attitude and a work ethic that focuses on competition. A change in culture is needed in many companies, in universities, and in government.

I'd like to close my remarks with a quote from Schumpeter, an economist who said something about 30 years ago that has stuck with me. I think it is probably becoming truer and truer since he said it: "Profit is the payment you get when you take advantage of change."

Thank you very much.

DR. CZINKOTA: Our next speaker is William Lilley, who is President of the American Business Conference, an association of approximately 100 medium-sized companies involved in various industries. He has held this position since 1986.

Dr. Lilley received his Bachelors from the University of Pennsylvania and his MA and Ph.D. from Yale University, where he also taught for seven years. In addition, Mr. Lilley was Senior Vice President at CBS, Vice President of Government Affairs at the American Express Company, Minority Staff Director of the House Budget Committee, Director of the U.S. Council on Wage and Price Stability, Deputy Assistant Secretary in the Department of Housing and Urban Development, and co-founder, editor and writer of the National Journal.

Dr. William Lilley.

DR. LILLEY: Michael didn't mention my Little League baseball achievements when I was 14, but I guess you can't have everything.

I'm glad to be here. I'm beginning to get worried about all of you in the audience because I've been in town for the last year and what you are going to hear this afternoon is not what I've been hearing up the street on Capitol Hill about competitiveness. [As for] the speakers--who come from different parts of the country, [have] different points of view and, and who are unscripted--we have never seen each other before, but we are beginning to sound a bit alike.

My organization--I'm a lapsed academic, so I can I guess be more hyperbolic--is involved in the business of international competitiveness. The American Business Conference consists of 100 mid-sized growth companies evenly distributed across manufacturing, basic manufacturing, high-tech manufacturing and the service industries. They are a pretty good reflection of those splits within the GNP.

If you were to ask these companies today about competitiveness, unlike my good friend Dick Gephardt, they would say the biggest problem in the federal government is the budget deficit; they take Allen Lenz's and George Hatsopoulos's position that if the federal government wanted to help competitiveness, it would reduce the federal budget deficit. They would agree with what I think is the generally accepted point of view that unfair trade barriers represent only 10 to 15 percent of the competitiveness problem, and they would take the position that the three previous speakers took that the biggest burden for international competitiveness rests with business itself.

Now, let me say a word about these 100 companies in the American Business Conference, because as a Washington-based institution, it is probably unique. ABC has a growth standard to get in and stay in. You have to have grown over the last five years--either sales or earnings--three times the rate of GNP plus inflation. That works out to a little under 15 percent currently, and companies have to be in the mid-size range in terms of sales--between $25 million and $1 billion, and once in a while you can grow to $2 billion. Those standards are rigidly enforced in the Conference and, as a result, approximately 20 companies flunk out each year and new companies come in.

The average size of the company in the ABC is $400 million in revenue, average rate of growth of sales is about 20 percent, earnings about 29 percent. A typical ABC company creates 14 percent new jobs per year.

As a result of these very strict standards, the companies that remain in tend to be very high-quality American companies. It is interesting if you look at the companies I am going to give you, because I've picked some, where you are beginning to see product name and product identification be known in the public as mid-size rather than large size: Hasbro Toys, Cray Computers, Dunk'N Donuts; Brown, Foreman Distillers; Hartman Luggage; Lennox China; Nutragena Soaps; Peat, Marwick or Arthur Anderson, synonymous with accounting; Genentech for biotechnology; Stratus; A.T. Cross for pens, and so on. What you've got in this group of 100 companies is, therefore, a self-selecting laboratory of excellence.

In terms of international competitiveness today, about a year ago we started an intensive survey of the 100 ABC companies to find out what they did internationally. We are halfway through this study (conducted with McKinsey & Co.). We published in February an initial study, The Challenge of Global Competitiveness, Views of American High Growth Companies.

We asked the CEOs: Were they active internationally? Were they successful? What were their attitudes towards it? We found out that almost all of the 100 were active internationally. We found out that they were extraordinarily successful. Their average revenue growth rate from 1980 to 1985 was approximately 30 percent per year. Last year, with the change in the dollar, it rose to 46 percent.

We asked the Chief Executive Officers--and remember these people are strewn across a wide variety of products and services--To what did they attribute their high rate of performance? Answers were unanimous. And they sound like the people before me: managerial will and skill, dedication to innovation, product and marketing quality, to understanding and being close to the customer, to adapting your product or your service to that market, to stressing customer service, to being flexible at all times. As types of businesses they were not the low-cost or low-price producer or servicer. They were not. These are all high-wage companies. Thus, they are your classic value-added American manufacturing and service companies.

We asked them to rate themselves on how they contrasted to foreign competitors. They contrasted themselves negatively on cost and price and positively on all the quality indicia.

We asked them: What was the biggest single problem to competing abroad? The answer was unanimous: overcoming cultural barriers abroad, particularly the perception in the Common Market and Japan that American goods and services are of inferior quality.

In terms of management, operating internationally, keep your international operation center stage. I'll give you an anecdote. We have been doing workshops with these people to find out how they operate and the McKinsey people always want to know how things are set up administratively. That's their job. They kept asking the Genentech CEO how he was set up in the Common Market. And they asked "Who is your in-country manager in Germany?" And Bob Swanson thought for a minute and said, "I guess it's the guy from Genentech there that day."

The ABC companies are lean and mean in terms of management. They keep international center stage, as well as domestic. From this study we drew some lessons as to how these kinds of companies that are successful abroad are different from your classic American companies that were successful in the '50's and the '60's and parts of the '70's.

The most interesting index was how they weight their total cost structure. Their highest cost, number one, is cost of market access. Their second highest cost is what they call cost of capital/taxes. Third, their cost of customer support and, fourth, cost of labor and resources.

So in many respects, they have flipped the cost pyramid of the 1960's company. Other lessons we learned from them, and you've heard them from the other speakers: fierce attention to detail because that translates into quality; hands-on management to get product and marketing quality. It is interesting in these 100 CEO's that not one is a former chief financial officer or general counsel. In fact, only 20 of these 100 companies have general counsels.

A good example of their attention to detail is that 66 of the 100 CEO's have multilingual skills, and they stress the necessity of linguistic skills to do business abroad.

Two good stories. John Rollwagen, who runs Cray Computer, called me last November. I could hardly hear him. He's traveling all the time, and I said, "John, are you in an airport?" And he said, "No, I'm in Paris." I said, "What are you doing in Paris?" And he said, "Cray's business plan for 1987 is to sell five Cray supercomputers into the French marketplace, and I thought to myself when I saw the business plan, how could I ask someone to buy a $10 million product from someone who couldn't speak the language? So I've moved my office to the Ninth Arrondisement in Paris for six weeks to learn French fluently." I said, "John, how big is your office?" He said, "My secretary."

Another example. Lee Brown, who runs Brown, Foreman, probably the most successful distiller and importer of spirits in the country, probably in the world. They have the exclusive arrangement with the Bolla family in Italy to import all Bolla products in the United States.

We were talking one night at dinner about the most difficult thing you had ever done or the thing you'd done the worst or the best. And he said easily the most difficult thing he'd ever had to do was to get the Bolla contract from the Bolla family because they are extremely aristocratic Italians and they will not do business with people who cannot speak Italian. And here is this man, a 50 year-old man, who said, "I took this six-week crash course at Berlitz so that I could become fluent in Italian. Believe me, it was the toughest thing I've ever done." That's the kind of attention to detail and the kinds of skills you need internationally. The third thing we learned about what makes these companies different, compared to maybe a more archetypal American company, is the commitment to patience and risk taking.

Each of these people said that you have to plan for four or five years when you enter a foreign market before you are going to turn a profit. You can't go in with the expectation that you can move in and move out profitably in a very rapid fashion.

And second, these companies are able to take this long-term view because none of the CEO's is fixed on quarter-to-quarter results. One of the reasons that makes these companies able to take this view is that the senior or top management cadre in an ABC company typically owns about 32 percent of the stock. When they were young companies they compensated people in stock, so in that sense, they are insulated from the kinds of pressures that financial analysts on Wall Street put on bigger companies.

Finally, many of the companies are run by the people, as I said earlier, who have been part of the product innovation.

I'd like to close and make three points on what we learned as opposed to what we think the executives learned. We learned four reasons which are very different than the dialogue today, except what you've heard so far this afternoon as to why companies go abroad. Why did these companies go abroad?

First, the obvious one was because of growth in revenues and profits; in many cases, margins are bigger abroad than domestically.

Second, the great bulk of these companies went abroad to protect their home market. They take a deliberately offensive/defensive strategy, rather than a defensive/offensive strategy, that if you can penetrate a Common Market country or Japan faster than those companies can come into your country, then you can use that leverage to protect your home market.

Third, in the Common Market and Japan, there is greater availability of lower-cost and better capital. And capital to these kinds of companies has three dimensions. First, the cost of investment capital, that's the obvious one. The second, which I think we'll start to focus on and has broad public policy implications, is the need for more patient capital than you can get in the United States. And third is their stress on human capital. They have been able to recruit people better educated either technically or linguistically in other countries than they can in the United States.

Fourth, many of these companies increasingly go abroad because the markets they are in are now operating in a global sense. They say that to be able to capture a technology and innovation which is occurring abroad as rapidly as it is occurring in the United States, you have to have a fully integrated presence, and if you don't have that presence, you aren't able to capture that technology and bring it home.

Second point. We asked them: What kind of problems do you see about all this appearance that business is asking for protectionism, labor is asking for protectionism? They had two interesting answers which I think are much more subtle than you would think the business community tends to be portrayed as offering.

They said that they were most worried about it in the first place because it evinced a fear of foreign competition, that by being defensive you were saying that foreign products and services were of higher quality than your products and services. And as a sort of numerator of that, they said they were worried that this attitude evinced an "us versus them" mentality, and they said you can't be successful in managing a company that is going to go abroad if you treat international as a sideshow in your company. It always has to be integrated.

One of our best companies, Sealed Air (they make that product that has the bubbles that wraps other products), their goal in terms of running the company (they are integrated all around the world) is that the managers, when they have conferences, look and think and act alike--only their accents are different. But you can't have an "us versus them" mentality.

Second, the other thing that they worried about in terms of the people being willing to embrace protectionism is what they said was the sign that business was now turning to the Federal Government as the place that would open business opportunities abroad. I can't tell you how many of these executives have told me the old story about the three least believed statements in the English language. One, the check is in the mail. Second, don't worry, I'll respect you in the morning. And third, I'm from the Federal Government and I'm here to help you.

If markets are going to be penetrated abroad, business is going to do it.

Finally, we would argue that the lessons of these ABC companies are transferable to other companies. All of these companies started abroad when they were small. You don't have to have companies like General Electric or the big conglomerates that have done it in the '50's and '60's and '70's. You don't have to have huge scale. But it takes work, patience, the kind of cultural changes these gentlemen were talking about, commitment to quality, commitment of the management at the highest level.

I guess having heard what the previous speakers were saying, I would never have ended this way. We are really dealing here with a problem of business management: Business management has a problem to cope with in the 1990's of the scope of the energy and inflation problems of the 1970's, and it is going to take a change in culture and commitment to move your company to where you can successfully compete abroad.

Thank you.

DR. CZINKOTA: Thank you very much, Bill.

DR. CZINKOTA: Let me turn then directly to questions from the floor covering the area of competitiveness at the micro level. Any questions for the panelists?

QUESTIONER: I am almost ashamed to ask the question after such presentations. In the issue of international competitiveness, and I also was glad to hear in the cutting edge companies we don't have CEO's that were ex-financial officers, which was one of the problems they had in the '60's and late '70's. But given the aspect of short-term rewards that are prevalent with most American companies and long-term rewards abroad, the specific issue of expected return, how does it play in international competitiveness when American companies' expected returns are usually twice that of the European companies or usually three times that of the Japanese companies?

DR. LILLEY: Perhaps the most difficult question you could ask. Everyone here alluded to the need for cultural change. I see it in my companies who are now--I mean these companies are growing very rapidly so they are capital hungry. So when you talk to these people, you get someone who can rank his potential sources of capital compared to different countries as to where he would seek capital given different advantages. And in terms of cost and patience, this country is at a disadvantage. And it is showing up in our lower rates of capital formation, both fixed and knowledge capital and, hence, our lower rates of productivity compared to Germany or Japan --or even Italy, France or the U.K. now.

I wouldn't want to hold my breath around this town for a law passed that would require pensions, for example, to hold stock for a year to qualify for a favorable tax treatment. The number of stock brokers that would come to town would probably ruin the traffic system for 25 years.

It is a serious problem and our financial markets operate differently than other markets and I don't have any answer, but you put your finger on one of the major public policy implications of what I think all of us are saying implicitly here.

DR. ARPAN: I'd like to pick up on that because I think it gets at two aspects of the international awareness. One is from the corporate side. They are frustrated with U.S. capital markets. They can go offshore for their capital, and a lot of U.S. companies never even consider it. If they can take advantage of the kinds of things that we were just

talking about here, that they can get more patient, longer term, lower interest rates abroad, and they just think, I don't want to borrow in Germany for some reason or Japan or wherever it might be. They are just not aware of the opportunities to do that.

And secondly, is the U.S. investor recognizing the cost to America's international competitiveness of having such a damn short-term orientation. People don't think it has any kind of competitive effect, but it does. They are just simply not aware of it, and I think the same thing applies to the consumption aspect of it.

The Japanese are willing to pay higher prices in Japan for products produced in Japan. They know they are more expensive, but they see a trade-off in terms of employment. I'm not saying that it's right or wrong, but many American consumers don't really understand the impact of simply going for the lowest cost product wherever it comes from.

MR. FELKER: I didn't get to hear him this morning, but I'm sure that George Hatsopoulos made the point that cost of capital influences the planning horizon of firms. In addition, with the recent tax reform we lost the investment tax credit on the one hand, and the capital gains differential on the other.

Innovation and longer term strategies are directly influenced by the cost of capital and by Wall Street's interest in the quarterly report.

QUESTIONER: I am interested in your views about the importance of innovation and making the best use of ideas for U.S. exports and also how can government policies both on the state level as well as on the Federal level improve on our capacity to do this?

DR. RYANS: Well, to begin with I think one of the things that our foreign friends think is that the U.S. gets a great deal of technology transferred or applications transferred from much of our defense spending. One of the interesting programs that I attended last year was an attempt to see how more readily we could take information and technology that had already been declassified and get it from the public sector to the private sector. Representatives of all of the military groups were there. All of them talked about extensive kinds of patents with potential consumer and industrial uses that might come from some of the patents that had been declassified.

A very interesting statistic, of the declassified material in the last five years, only 3 percent had been carried from the public sector to the private sector and some kind of group in between. Maybe a private sector group needs to be interfacing there to speed up this process.

DR. LILLEY: I'd like to say something that is both traditional and controversial. I think the first problem we are having with innovation is the state of our educational system. Many of these 100 companies--that are arguably the best in the United States--are deliberately moving assets and plants abroad so that they can employ higher-quality human capital in terms of technical skills and, as I said, linguistic skill. We have got to to get our educational act together at the state and local level; there has got to be more of a sense of meritocracy and push in terms of state and local education or you are going to see more companies going overseas.

Secondly, which I think is very radical and we are not ready for in terms of cultural change, is to see these 100 cutting edge companies aggressively importing people from abroad who are more highly skilled technically than you can get in the United States. You are going to begin to see a press from the business community on Congress to change immigration laws so that the brightest and the best of human capital can come here, or the threat is that people will deploy facilities abroad. That's really the wellsprings for your innovation, particularly in value-added and quality-added companies. But that is going to take awhile to change.

MR. FELKER: The United States has the largest technology base of any country in the world, probably as large as everybody else put together. You can hand new technology to a company on a silver platter, but if the company hasn't planned in its strategy to develop a product related to that technology, it is not going to use it.

American technology has fueled our competitors too. Our own inventions have come back in the form of imported products. For example, we will soon be importing the ceramic engine in Japanese cars. You have to go back to what firms want to do. If we simply create technology which has no relationship to market pull and set it out there for all to pick over, foreign firms will often use it and U.S. firms may turn up their nose at it. That's been going on for a long time.

Go to any technology center that the government, a state, or a university runs and go through the visitor log to see where the people are from. They are mostly foreign. The firm has to be aggressive. They have to be at the point where they are looking for something. If they are looking for it, they're probably going to find it.

People who say that our technology is not readily available or it is hidden, or we don't catalogue it well enough, are wrong. Foreign firms find it very readily.

Now, as for the matter of innovation itself, you can have the best managed company in the world. You can have a highly motivated work force. You can have a wonderful shop floor that is laid out beautifully and a great marketing force and so forth. But if that firm can only make hula hoops, then it's dead. Efficiency doesn't matter in that case.

In the final analysis, you have to be making something that the market wants and market demand can change rapidly. Our firms are not being beaten as much at the margin as they are in the basic game itself.

QUESTIONER: I'm interested in the comments that have emerged out of this panel on cultural change and particularly the role of education. Some of you are related to the changes that need to take place in state and local education. Obviously we are dealing with almost a generation before we see the fruits of those changes even if we start today.

I guess the question I would have is for the short term. Do you feel that the business schools are making changes and are they up to the task to start educating us right now?

MR. FELKER: I don't believe so. The real front line of this reeducation is really in two areas. First, the junior colleges are much more flexible than the universities. The other group is an alternative educational system that is purely commercial.

There is a phenomenal number of accredited degree granting institutions that are owned by companies. There is only one--McDonald's--that doesn't take all comers. In other words, you could go to the IBM Institute and get a BA.

I would suggest that our universities will be the last to change. I don't see the problem that you see in terms of lag. The problem is market pull. When firms want people trained in a certain area, you will see a system spring up to meet that demand very quickly, maybe within as little as a year, and you'll see graduates coming out very quickly.

Unfortunately, we can't successfully anticipate what we are going to need and start producing it. That's the same as technology push. It doesn't work that way. It works with demand pull.

DR. LALONDE: I wish I could disagree with you, and announce that we are moving ahead boldly. Although there are some rays of hope. I heard yesterday when I was at an all-day faculty meeting that our university is restructuring our undergraduate education and all our colleges will have to make a case to the Provost if they do not include a language requirement in their curriculum. That will be a first for us.

A university is a culture that absolutely glories in preserving the sacred thing. You know, they say that's the role of the university, to preserve the culture and the thinking and so on. And so when you start trying to change universities, you really have a unique set of problems, because they don't really change very easily.

And it's a special case of what we were talking about earlier, and that is the question of the management of change. The problem with change today is that most of the change that is going on is boundary spanning. You know, when change used to happen 15 or 20 years ago, it happened in the factory or it happened in Cincinnati or it happened to a particular product or something like that.

It was isolated change that you could deal with. The kind of change that we are dealing with right now spans marketing and production and distribution and culture and language and so on. It is much more difficult to deal with both for the business and certainly for the university. Universities are compartmentalized. Most business schools have marketing departments, and finance departments, and management departments and so on. One of the problems with international business is that it spans all of those areas. It is very difficult to achieve that boundary-spanning process in a university.

I think that, like many businesses that have changed after they've gotten hit in the head by a two by four, some universities will also require dramatic impetus for change.

DR. ARPAN: I guess I would like to disagree with Mr. Felker. I'll admit it is difficult for universities in many cases to put together a really multidisciplinary program, which international business is. I mean it's got to be language and area studies, geography, business, but it can be done. Since 1974, at the University of South Carolina, we've had that kind of program. All of our students have to learn a second language. They all have to intern abroad for six months before they graduate.

They take courses from government, international studies and geography in addition to the MBA core. I would say this was somewhat ahead of the business community because we still have a hard time convincing the business community that there is a market for graduates of this program, who are multilingual, they've all had overseas experience, they have MBAs plus international business course work.

The companies say, how many finance courses have you had? How many accounting courses have you had? This is still the preponderance of American industry. There are many multinational companies that see the benefits of graduates of this type of program. But by and large what I am saying is that there are universities that have been innovating out there, in essence, ahead of the market and the market hasn't caught up to them.

DR. CZINKOTA: Well, in the interest of time, I think at this stage we'd better move right along. I want to thank the panelists for their most insightful comments. I thank you the audience for participating, for sticking around, for asking very in-depth questions.

I do also not want to be remiss by failing to mention Martin Kohn and his staff, who have labored for six months in putting this conference together.

I thank you all and have a good evening.

APPENDIX

Dr. Jeffrey S. Arpan is a Professor of International Business and Director of International Business Programs at the University of South Carolina. He received his Ph.D. in business administration from Indiana University and from 1971 to 1979 was a member of the international business and accounting faculty at Georgia State University. Throughout his career, Dr. Arpan has focused on international industrial competitiveness, especially in the fiber, textile and apparel industries.

Among the six books that he has authored or co-authored on the subject are The Competitive Status of the U.S. Fibers, Textiles and Apparel Complex; The Global Textile Industry; The U.S. Apparel Industry, International Challenge and Response; and Corporate Responses to Import Competition in the U.S. Apparel Industry.

Dr. John Ryans is a Professor of Marketing and International Business at the Graduate School of Management at Kent State University. His teaching and administrative career spans 20 years, including faculty appointments at the Universities of Maryland and Kentucky, and as Visiting Professor of International Business at the Columbia University School of Business.

Dr. Ryans' many publications in the international marketing arena include Marketing High Technology; Multinational Marketing, Dimensions and Strategy; Thinking Strategically; and World Marketing.

INTERNATIONAL COMPETITIVENESS IN THE U.S. APPAREL, TEXTILE, MAN-MADE FIBERS, AND PULP & PAPER INDUSTRIES

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INTERNATIONAL COMPETITIVENESS IN THE APPAREL, TEXTILE, MAN-MADE FIBERS, AND PULP & PAPER INDUSTRIES

During the last decade, the authors have been involved collectively in several research projects concerning the international competitiveness of the U.S. apparel industry, textile industry, man-made fibers industry, and pulp and paper industry.[1] While slightly different in research design, all of these research projects had a similar purpose: to identify ways in which the international competitiveness of the U.S. industry could be enhanced.[2] To accomplish this purpose, the studies examined the factors that influenced competition and competitive strategies in the global industry, and assessed their

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[1]See: Jose de la Torre et al, Corporate Responses to Import Competition in the US Apparel Industry, (Research Monograph No. 74, Business Publishing Services Division, Georgia State University, Atlanta, Georgia, 1978); J.S. Arpan et al, The US Apparel Industry: International Challenge and Response, (Research Monograph No. 88, Business Publishing Services Division, Georgia State University, Atlanta, Georgia, 1982); Brian Toyne et al, The US Textile Mill Products Industry: Strategies for the 1980's and Beyond (University of South Carolina Press, Columbia, S.C., 1983); The Competitive Stature of the US Fibers, Textiles, and Apparel Complex, (National Academy Press, Washington, D.C., 1983); David Ricks et al, The United States Man-Made Fibers Industry: Global Challenges and Strategies for the Future (University of South Carolina Press, Columbia, S.C., 1984); and Jeffrey S. Arpan, The United States Pulp and Paper Industry: Global Challenges and Strategies (University of South Carolina Press, S.C., 1986).

[2]International competitiveness refers to being competitive in the domestic market (i.e.vis-à-vis imports) and/or in foreign markets. In this sense, becoming more internationally competitive means increasing the global market share of U.S. owned firms (here or abroad).

implications for future competitive strategies of the U.S. industry. This paper briefly summarizes the findings and conclusions of these prior studies in an attempt to draw some cross-industry generalizations and general implications for the United States.

INDUSTRY CHARACTERISTICS

The four industries span continuums of several characteristics. In terms of capital intensity, they range from a very low level (apparel), through a moderate level (textiles) to very high levels (man-made fibers, pulp, and most of the paper industry). In terms of production economies of scale, they range from virtually non-existent (apparel), through moderate (textiles) to considerable (man-made fibers, pulp & paper). In terms of industry concentration, they range from very low (apparel then textiles) through moderate (pulp & paper) to very high (man-made fibers). And in terms of overall U.S. international competitiveness, they range from very low (apparel), through moderate (textiles and pulp & paper), to very high (man-made fibers).

The major competitive nations involved in these industries also vary. Asian-Pacific nations play dominant roles in apparel and textiles, but very minor roles in man-made fibers and pulp and paper (except for Japan). The Scandinavian countries and Canada play major roles in the pulp & paper industry, but minor

roles in the other industries. European countries are important actors in the man-made fibers industry, but are not major actors in the other industries (except for Italy in textiles). The United States is the largest producer and consumer in all the industries, but usually ranks among the smallest exporters in terms of percentage of industry output exported.

Based on numerous economic theories, such as the theory of comparative advantage, none of the trade phenomena observed were particularly surprising. Comparatively capital rich-countries are significant actors and internationally competitive in capital intensive industries such as pulp & man-made fibers, comparative timber-rich countries in the pulp and paper industry, and comparatively cheap labor countries in the more labor intensive industries (apparel & textiles). However somewhat surprising was the under-potential international performance of the U.S. pulp and paper industry. Despite having one of the most exploitable comparative advantages (if not the most), the U.S. pulp and paper industry was actually in a trade deficit position.

Finally, aggregate measures of industry performance and international competitiveness masked those of individual companies within an industry. For example, in the beleaguered U.S. apparel industry, some firms consistently outperformed others and were very internationally competitive, while most were not. As a result, one has to examine both macro and micro factors to ascertain what causes success in the international arena, regardless of industry or country.

THE INFLUENCE OF MACRO FACTORS

Macro factors, as used in this paper, refer to factors exogenous to firms. Examples include government policies and laws, GNP, supplies and prices of factors of production, general levels of education, prevailing cultural attitudes and values, foreign exchange value of the currency, condition of the infrastructure, the degree of industry concentration, and the size of the domestic market.

In virtually all of the industries studied, macro factors played an important roles in influencing international competitiveness - both real competitiveness and artificial competitiveness. One example was Scandinavia's competitiveness in pulp and paper. Scandinavia's ample supplies of accessible timber, small domestic markets, and geographic proximity to the larger markets but comparatively disadvantaged industries of continental Europe all helped its real international competitiveness. At the same time, Scandinavian government policies created artificial competitiveness through strong government support of the industry, aggressive devaluations of currencies, and favorable tax incentives. Another example was Japan's lack of international competitiveness in the pulp industry. A shortage of accessible low cost timber made its industry non-competitive. However, government protection of the industry, including the formation of a legal industry-cartel, kept the industry from being even worse off. A similar example

was the U.S. apparel industry, which was "kept alive," albeit not-competitive, by the government's protection policies (e.g., the multi-fiber arrangement and numerous bi-lateral trade restriction agreements). And in the case of many countries' international competitiveness, export subsidies and other export incentives created artificial competitive advantages to what ever real competitive advantages (or disadvantages) existed.

In fact, government intervention in various forms and directions influenced international competition in all the industries studied. In many cases, it was outward-directed in the sense that it sought to facilitate exports. The policies of the governments in Scandinavia and most of those in the Asia-Pacific region were of this outward-directed variety. In most other cases, government intervention was inward directed, essentially trying to lessen imports. Such policies were typically pursued by the governments of Western Europe (excluding The Federal Republic of Germany), Latin America, and, in the case of textiles and apparel, the United States.

THE INFLUENCE OF MICRO FACTORS

In each country's industries, some firms were more internationally competitive and successful than other firms, regardless of the international competitiveness of the nation's industry in the aggregate. The differences were occasionally due to special government assistance to particular firms, but in most

cases were due to differences in corporate strategy and management abilities. To put it succinctly, some firms were better managed than others. And for the most part, "better managed" was synonymous with being better strategically positioned in a global context. As used in this paper, strategic positioning refers to utilizing factors of production and other competitive advantages to maximize favorable opportunities and minimize unfavorable threats, both domestically and internationally. These points are best illustrated by summarizing specific findings by industry.

The Apparel Industry

In the apparel industry, strategic positioning for U.S. firms meant developing and defending a differentiated market niche. Due to their tremendous labor-cost disadvantage vis-à-vis firms in developing countries, trying to compete on a price basis was not likely to succeed. Therefore, successful U.S. firms followed non-price strategies, such as providing superior quality products, faster delivery times and reorder capabilities, better after-sale service, and more fashion oriented garments. Successful firms were also more marketing (customer) oriented.

Most successful U.S. firms also adopted a hub-type production system. Small sewing plants were located 10-20 miles around a central facility that cut fabric, did tagging and other preparation for shipment, and served as the central receiving, shipping, warehousing and administrative center. However,

America's most profitable apparel company, Liz Claiborne Inc., followed a highly unique strategy. It internationally subcontracted and sourced nearly 90% of its product line (mostly from Asian suppliers) and did no manufacturing of its own in the United States. Its high-fashion-but-affordable-price market niche, combined with astute international sourcing and a revolutionary concept of six-season lines, made it the most successful U.S. firm in the industry in less than a decade of operation. However, the vast majority of U.S. apparel firms did not choose to pursue any international sourcing or strategy, continually lost domestic market share to imports, and did little to no exporting. Furthermore, unlike most of their counterparts in Europe and the Pacific, U.S. apparel firms had largely adversarial relationships with their major suppliers (the textile industry) and their customers (wholesalers and retailers). As a result, despite continued trade protection, employment, sales and profits continued to erode in the U.S. Apparel industry.

The Textile Industry

In the U.S. textile industry, strategic positioning was somewhat more feasible and successful. Increased modernization of production facilities and increased expenditures on R & D permitted some firms such as Milliken to remain highly competitive on a price-quality basis. Most successful firms also altered their product mix, reducing dependence on fabrics for the apparel industry, and increasing production of fabrics for home-

furnishings and industrial use. They also upgraded the quality of fabrics for the apparel industry, and devoted greater effort to marketing than less successful firms.

The reduction of heavy dependence on fabrics for the apparel industry, along with new equipment, were probably the most important strategic moves. The weakness of U.S. apparel industry was adversely affecting the profitability of U.S. textile firms. Shifting production to fabrics for home furnishings and industrial use (products less subject to important competition) allowed profit margins to increase. And because many of the larger textile firms themselves produced home furnishings and industrial fabric products, it gave them control over the final products' quality, pricing, distribution, and marketing. New equipment increased productivity and, by reducing labor content, reduced the labor cost advantage of foreign producers.

Virtually no firms expanded operations internationally, relying almost exclusively on domestic production for the domestic market.

The Man-Made Fibers Industry

In sharp contrast to their downstream counterparts, firms in the U.S. man-made fiber industry were very active internationally. They exported a significant percentage of their domestic production, and most established overseas production operations. Contributing factors to their export drive and

success were the need to utilize large scale capacity and a comparative advantage in technology and product cost.

In an industry with substantial production economies of scale, being competitive usually meant having the newest and largest facilities. As the large firms in this oligopoly industry each added large capacity increments to the total industry capacity, "overshooting" often resulted. With significant overcapacity, firms had to export to keep capacity utilization from falling too low. Exporting was viable because total production costs in these large operations were among the lowest in the world (if not the lowest), and many firms also followed marginal-cost pricing strategies for exports. The latter strategy was particularly upsetting to the U.S. textile industry. It alleged that foreign textile firms often were able to buy U.S. man-made fibers at prices below what the U.S. textile firms had to pay for the same fibers, giving foreign textile firms a competitive advantage. Another source of contention between the U.S. textile and man-made fibers industry was the latter's move into fabric production. Especially visible in the non-woven fabric sector, some U.S. man-made fiber firms made inroads into markets historically the provence of textile firms or being sought by the textile firms (such as industrial-use fabrics).

The largest man-made fiber firms also used their considerable capital, management expertise, and technological leadership to establish production overseas, initially in Europe

then subsequently in Latin America and the Pacific Rim. Rather than having these overseas operations displace exports from the U.S., the most successful firms moved overseas the production of more standardized, less value-added product lines, and kept domestic facilities for production of newer, higher value-added lines. They thus served foreign markets' basic fiber needs from their foreign operations, while serving their more specialized needs with exports from U.S. facilities.

Finally, because entirely new man-made fibers were not being developed, successful U.S. firms developed new combinations of existing fibers and/or found new uses for existing fibers and fiber blends. And even though the industry's significant cost-quality competitive advantage lessened the need for marketing, the more successful firms devoted more resources to marketing than less successful firms did.

The Pulp & Paper Industry

Until recently, the U.S. pulp and paper industry was almost entirely a domestic industry: few exports, fewer imports, and very few investments abroad. Domestic demand was sufficient to absorb the output of the domestic industry, and imports were not price competitive with domestic products (with the notable exception of Canadian exports of pulp and newsprint to the North-Eastern U.S). As a result, competitive strategies were domestically oriented.

However, in the 1970's major firms spent millions of dollars on the development of the southern U.S. for pulp & paper production, resulting in increased industry capacity that outstripped domestic demand. And in the capital intensive, large production-economies-of-scale pulp sector, this new capacity became particularly under-utilized and potentially ruinous financially. The impact of the new and large pulp capacity had several impacts. It forced many pulp firms to export; it generally lowered pulp prices in the U.S. and thereby aided the competitive advantage of firms in the downstream sectors of the industry (e.g. paper manufacturers); it forced many smaller pulp firms out of business; and it generally lowered the profitability of all remaining pulp producers who couldn't expand their sales.

In most of the paper sectors, the more successful firms followed strategies of upgrading product lines to more differentiated, higher-value-added ones. This strategy lessened competitive pressures from imports and other domestic firms, and resulted in higher profits. The more successful firms also sought new applications for existing products, and developed new products. The expansion of the disposable diaper and garment markets was an illustrative example. On the other hand, some paper manufactures lost ground to plastic manufactures in several product markets, such as grocery bags.

But overall, the most successful and internationally competitive firms in the industry were the large, vertically integrated ones that produced pulp, newsprint, and a wide variety

of finished paper products. Their control of the production value chain gave them considerable flexibility and oligopoly power in upstream, downstream, and international activities. In fact, at times their international aggressiveness resulted in dumping investigations in Europe, and allegations of oligopoly pricing tactics in Japan (known as the famous "chip stock" of 1979-80 in which average U.S. wood chip exports prices to Japan rose by 70% in a six month period).

CROSS INDUSTRY GENERALIZATIONS

Generalizing about a single industry or even a set of firms within it is fraught with danger. Generalizing across industries is even worse. With these points noted, described below are factors which usually influenced (positively) international competitiveness across the four industries studied.[3]

(1) Outward Directed Government Policies.

Outward directed government policies clearly facilitated increased exports. Examples included direct export subsidies, special tax incentives for exports and export market development activities, and low-cost export financing arrangements. Other policies involved keeping the foreign exchange values of currencies low (or having them actually decline) and permitting

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[3] In this paper, the authors make no attempt to discuss the applicability of these generalizations to other industries. Readers may draw their own conclusions concerning applicability.

or encouraging export cartels or other forms of cooperative export organizations. Finally, there were many forms of general subsidies and tax provisions not directly related to export but which either allowed more corporate funds to be devoted to export or lessened the need for exports to be as profitable. Governments in Scandinavia and the Asia Pacific region were most prone to use outward-directed policies, and many were used quite effectively.

Not very effective were inward-directed (protectionist) government policies except to the extent that they slowed the adverse effects of the country's industries that were losing their international competitiveness.

(2) Significant Comparative Advantages (country level)

As mentioned earlier in this paper, international competitiveness was significantly influenced by a country's comparative advantages. Countries lacking a comparative advantage in a particular industry were generally not internationally competitive, and vice-versa. For example, Continental European countries lacked adequate supplies of trees and were not competitive in pulp and paper, while Canada and the U.S. had vast timber resources and dominated global competition. Most Asian-Pacific countries lacked the technology and capital base to be internationally competitive in man-made fibers, but had a significant labor cost advantage that permitted them to be

very competitive in apparel. The reverse conditions and situations applied to the U.S.

However, the mere existence of comparative advantage did not guarantee or always result in international competitiveness. The most striking example was the pulp and paper industry in the Soviet Union, and to a lesser extent, the one in Brazil. The USSR has the world's largest supply of timber resources and the capital and technology to exploit it, yet is only a minor actor in international markets. In fact, future projections suggest the Soviet Union may well become a net importer of pulp and paper in the next decade because government policies will concentrate on other industrial sectors. And in Brazil, it was not until its foreign debt crisis became so dominant in the minds of government officials that any major export drive occurred in pulp and paper, despite Brazil's vast timber resources.

(3) Astute Management

When all is said and done, astute management was the key to most international competitiveness. In all countries and industries studied, some firms were more internationally competitive than others regardless of government policies, national comparative advantages, or industry competitiveness in the aggregate. These firms were simply better managed. Four particular areas of management seemed to be most crucial: product line selection; marketing and a final customer

orientation; buyer/supplier relationships; and international orientation and commitment.

Selecting the right product line meant producing products that were more exportable or less subject to import competition. Often times these products were the same. For example, unique/specialized products (such as trendy high fashion garments or sophisticated man-made fibers) were simultaneously less subject to import competition and also more exportable. Deciding on the best product line involved management analysis of the country's comparative advantage and government policies, international markets and competition, and internal company capabilities. In this manner, successful apparel firms in the Asian Pacific region typically selected low end, standardized apparel lines, while those in the U.S. selected higher end, more differentiated apparel lines. The same pattern was evident in the man-made fibers industry, with Asian firms concentrating on low end, mature, commodity type fibers while U.S. firms selected newer, high-value added, sophisticated (differentiated) fibers. And within the Asian Pacific region, Japanese firms' product line selections differed from those of Korea & Taiwan in much the same way. Japan's successful firms concentrated on less mature and more sophisticated/differentiated product lines, while Korean and Taiwanese firms concentrated on more mature, less sophisticated products, regardless of industry.

A devotion to marketing and a final customer orientation were also hallmarks of the most successful firms, regardless of

industry. Given the diverse and constantly changing nature of consumers preferences and consumption behaviors throughout the world, firms that succeeded devoted more resources to sophisticatedly determining and analyzing these factors. Market and marketing research activities were important activities, involving consumer surveys, point-of-sale interface and analysis, and analysis of secondary data. Making products to fit consumers' preferences, rather than products that were expedient to produce, was a key success factor.

Some competitiveness problems of the U.S. textile industry were directly related to this issue. Many firms were unwilling to produce limited quantities of fabrics or fabrics that were more difficult to make even though U.S. and foreign apparel manufactures were ready to order them. Instead, these textile firms preferred to produce only large quantities of a given fabric that was relatively easy to produce, somewhat in a manner analogous to Henry Ford's early production dictum: "You can have any color you want so long as it's black." This method is cost efficient, but it's marketing inefficient when others are willing to adapt to customers' needs and preferences. The success of so many Japanese firms and industries remains attributable in large part to their greater customer orientation.

Maintaining good relations with buyers and suppliers was another hallmark of successful firms. Such relations were typically long term, cooperative, and mutually beneficial in nature. They usually were also conspicuously lacking in the U.S.

compared to most other countries. In the U.S. business community, buyer and supplier relations tend to be comparatively impersonal, adversarial, and short-term, bottom-line oriented. Buyers are reluctant to share future plans or key information with suppliers, or to work with them to solve problems. And vice-versa. And while these conditions exist in other countries to some degree, they are far less prevalent and severe.

Better relations with buyers and suppliers promotes better communication and coordination, provides better information and more stable, secure relations, and can generally improve corporate long-term success. While the Japanese are well known for these kinds of buyer and supplier relations, they are not unique. Similar relationships were found to be in practice throughout the Asian-Pacific countries and in Latin America, and to a lesser extent (but greater extent than in the U.S.) in Western Europe. Many times these relationships involved partial ownership and/or long term contracts, but there was always a strong continuing philosophical commitment. In the U.S., cultural factors and historic business practices make such relationships more difficult to achieve, adversely affecting America's international competitiveness.

A strong international orientation and commitment was the final characteristic found consistently among successful, internationally competitive firms. Neither the domestic market nor their domestic competitors were typically their only concern; foreign markets and all competitors for these markets

were also of great concern. In virtually all facets of their operations, international factors were considered. Examples included where to conduct production operations, where to source production inputs, where to raise capital, where to market products, which products to produce, and how to produce them. In a sense, domestic considerations were a sub-set of global considerations.

In addition to having a significant international orientation, successful firms also had a strong commitment to international business. International activities were planned in advance and were carried out even when unfavorable conditions arose. For example, if their country's currency appreciated in value relative to an importing country's currency, export sales would still be made even if sales were to be less profitable than planned. In short, these firms were committed to international activities in both good times and bad times. They were not just opportunistically responding to temporary conditions.

IMPLICATIONS FOR THE UNITED STATES

The United States is comparatively rich in wealth and the factors of production necessary to create it. Yet despite these comparative advantages, it has been steadily loosing ground in terms of international competitiveness, symbolized by the record setting balance of trade deficits and by changing from the world's largest international creditor nation to its largest

international debtor nation. In short, the U.S. seems to be sitting on its potential and resting on its laurels. We could and should be doing better.

How could we do better? The findings of the industries studied suggest that most firms are insufficiently aware of international competitiveness issues and trends, and are ill-quipped to deal with them. Therefore, a crucial first step is to enhance the American business community's awareness. Businesses in all industries must become aware of the international forces that influence competition at home & abroad, their trends, and their implications for the U.S. industry and their specific firm. In short, focussing only on domestic conditions and competitors is a myopic and potentially ruinous strategy. Appropriately designed conferences, held throughout the country, would do much to expand and enhance the international awareness of U.S. industries. They should provide pragmatic examples of how international trends affect specific industries, and how successful firms are adjusting to the trends.[4]

However, although being better aware is necessary, it is not sufficient. Firms must also be able to take appropriate actions to improve their competitive position. For most firms in the industries studied, changes in capabilities, managerial skills, and attitudes are needed. Personnel must be internationally

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[4] For example, the University of South Carolina's Center for Industry Policy and Strategy has conducted conferences along these lines for the apparel, textile, man-made fibers, and pulp and paper industries.

attuned, oriented, and equipped with the skills necessary for competing in a global context. Knowledge of foreign environments, cultures, and business conditions and practices is needed, and in many cases, skills in foreign languages and cross-cultural communication. Therefore, a second important step is for firms to hire personnel with such abilities and backgrounds, and/or to assist their existing personnel develop in these areas. Many graduates of international business programs still find it difficult to obtain employment in the U.S. because so many firms don't see a clear benefit from hiring them. Many firms are even reluctant to participate in internationally oriented internship/field study programs offered by higher education institutions, such as those offered at the undergraduate level by Clemson University, and at the graduate level by the University of South Carolina.[5]

The findings of the industries studied also showed a prevalence of adversarial attitudes and practices, rather than cooperative ones. This adversarial situation involved business-

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[5] For example, in the Master of International Business Studies (MIBS) program at the University of South Carolina, foreign students are required to work for six months in U.S. companies as part of their degree program. These interns can help a firm identify export opportunities and better understand foreign competition and competitive forces. American students in the MIBS program must intern abroad for six months, and can help overseas subsidiaries of U.S. firms improve their performance or better plan for international developments and contingencies. Students in Clemson University's Bachelor of International Trade and Foreign Language program are required to have a three month international business internship before graduation, either in the U.S. or abroad, and the internship can be in a private sector or public sector organization.

government relations and relations with suppliers and customers. More research and related conferences on the competitive advantages of greater cooperation would be beneficial to both the private and public sectors in the United States.

On a broader level, the findings of these studies and the collective experiences of the authors suggest several other important areas worthy of consideration to enhance America's international competitiveness. One area is a thorough re-examination of the long-standing adversarial relationship between government and business in the United States. The reality of most of today's world is business-government cooperation, not conflict. Countries that have made major gains in world markets are those which are characterized by the former, not the latter. A second area is the desirability of having a strong, articulated, comprehensive international economic policy. Those countries that have one tend to fair better than those that don't. A third area is increased international education at all levels in all sectors. International competition is affecting virtually everyone's livelihood and standard of living, either directly or indirectly. Yet, few are even aware of it, let alone know what to do about it. From primary schools through higher education to continuing education of persons in all occupations, we must impart the knowledge of global interconnectedness and interdependencies, and their implications.

In this light, every possible effort should be made to obtain speedy passage of the provisions concerning international

education and international competitiveness in the major trade bill currently before Congress. The crucial linkages between international education and international competitiveness explicit and implicit in these bills are right on target, as is the recognized need for federal funding assistance to expand and enhance international education in at all levels in all sectors.

DRAFT

Maintaining and Improving Competitiveness in Overseas Markets: The Corporate Perspective

by

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Paper presented at the "Improving U.S. Competitiveness Conference," Tuesday, September 22, 1987, at the U.S. Department of Commerce.

Perhaps no issue has received greater attention during the past two or three years than "U.S. competitiveness." Yet, the attention it has received is justified. For America's survival as a world power, the topic must continue to be a number one priority for the private and public sector.

In this presentation, two sets of data from the author's research on "U.S. Corporate Competitiveness in Non-Domestic Markets" are presented. In each instance, for focus of the research project is similar; it is directed toward determining how successful U.S. firms have maintained their vitality in foreign markets to date and the approach(es) they plan to follow in an effort to remain viable overseas in the future. Unlike traditional international trade analysis, this research explores the management strategies and tactics employed by the firms. Further, their (top managements') assumptions about their future

*The author wishes to especially recognize the assistance of the following co-researchers: Donald Howard, University of Akron; Lori Mitchell, University of Toledo; and William Howell, Kent State University.

operating environment are considered, along with the concerns they have regarding their domestic and worldwide marketplaces.

Basically, this research may be viewed as encompassing two major projects. One was a quantitative (or more macro level) project and the other a qualitative (or more micro or case-like) project. They (the study findings) are reported separately and then, are summarized together.

Macro Project" Results

Beginning in Spring 1985 and then continuing through early 1987, a series of studies by the author (and his co-researchers) have been conducted at the national-level. These studies were designed to determine how leading U.S. firms, especially those in high-tech industries, are presently conducting their international business and how they propose to compete for world markets in the future. A description of the methodology for this on-going project along with some of its preliminary findings appeared in a 1986 issue of Business Marketing.[1] In addition, several of the general results appeared in a 1985 Department of Commerce report, "U.S. Manufacturing at a Crossroads." Therefore, since much of the early research has been published; only a few key results (and tables) from this national level project are discussed here. As one word of brief explanation for the presentation that follows, the national level respondents were divided into two groups--those in high-tech industries (cutting-edge firms) and those from the Fortune 500 (Fortune 500 firms). All are considered among the most successful U.S. firms by any measure, e.g. sales, market share, R&D expenditures, etc.

Impact of the Superdollar

A particularly important "competitiveness concern" at the time of the initiation of the national level research was the impact that the "superdollar" was having on U.S. exports. The executives in the two groups, "cutting-edge" and "Fortune 500," both reported the superdollar made a major impact on their international operations in the 1982-85 period; roughly three-fourths of the "cutting-edge" and 80-plus percent of the Fortune 500 saw the superdollar as a real concern to their firm. However, before attributing all the firms' actions to the superdollar, there are further corporate assumptions to consider.

Company Assumptions

As we will subsequently see, the general response of both the "cutting-edge" and the "Fortune 500" firms to their eroding position in the mid-80's was to dramatically rethink their approach to world markets and a number even altered their international operations. Many economic analysts would attribute such changes directly to the strength of the dollar. However, from this and the later qualitative project, it was determined that the firms' decisions to change their approaches overseas were based on one (or typically, more than one) of the following additional assumptions. These assumptions are that:

(1) the various U.S. states' and cities' efforts to attract foreign direct investment would increase (and would not be "regulated" or "directed" at the Federal level);

(2) the value added tax remittment to "exporters" would continue to be practiced by European countries (and there would be little or no change as a result of GATT or other negotiations);

(3) the deficit problems in South America would grow (and countries like Brazil would increasingly make imports difficult and exports attractive);

(4) the dollar would ripple in the long-run even when the problems of the superdollar diminished;

(5) the U.S. would not enact meaningful "local content" legislation; and

(6) the heavy competition from foreign companies, including those investing in the U.S., would be a long term reality.

As any experienced internationalist would recognize, each of the above suggest the need for some form of foreign presence by a firm. And, some of the assumptions strongly support the use of outsourcing and third market exporting. With such assumptions well in place by the end of the 1982-85 period, a change in the way that many companies operate overseas would be expected (and, in fact, did occur.)

Approach to Foreign Markets

In the pre-1980 days, the bulk of U.S. companies involved in overseas could be classified as "export oriented." From the successful smaller high-tech to MNC, most American companies had a preference for exporting (Table 1). Even though they may have wholly owned facilities, joint ventures and the like, it was exporting from the U.S. that was the standard (and favored approach.) As the superdollar and other concerns began having their impact in the early '80s, companies first reacted by reducing their export departments, giving up the less attractive of their foreign markets, increased their outsourcing and

trimmed their product lines. Such steps were seen as very short-run, however.

As Tables 2 and 3 indicate, a majority of both the "cutting-edge" and the "Fortune 500" groups have by now put into place new strategies for penetrating overseas markets and have plans for even more change in the future. Currently, these firms are expanding their overseas production, increasing their number of joint ventures and two-thirds (or more) are even reorganizing their foreign operations (Table 2). And, in the future, the change is more dramatic. For example, one-half of the two groups of respondents have already initiated more joint ventures and more are being considered for the future. Similarly, global reorganizations are increasingly employed.

What is evident is that the two groups have moved sharply away from the pre-'80s and an "export-orientation." Today and in the future, we see considerably more flexibility and imagination in overseas operations. In particular, more outsourcing, joint ventures and licensing are being (or have been) formed. Licensing, for example, was given little attention in the past, but today and in the future, it will be a real factor. To conclude, we now see U.S. corporate management being sophisticated internationally and following a "global strategy.

Qualitative Project Results

Our aggregate data has suggested that the American producer now follows a more flexible foreign entry strategy, relies more

heavily on outsourcing and generally employs a global rather than an "export-first" strategy. Such findings, of course, are extremely useful for identifying trends and making industry comparisons, as well as suggesting needed policy recommendations. However, there is also value in looking at individual firms in a case-like fashion. Such analyses provide rich insights for other organizations caught in similar competitive situations or who are merely considering expansion or "fine-tuning" their organizational design.

During July and August, 1987, the author conducted in-depth study of eight (8) corporations in Northern Ohio; firms that have continued to be successful in spite of stiff competition in their respective industries. This research provides the basis for the comments that follow.

Findings

As the accompanying methodology discussion indicates, each firm that cooperated in this case-like research has many unique qualities. The firms varied in size alone from $1 million in sales to Fortune 500 size, i.e., 95th largest with over $3 billion in sales. And, the products represented ranged from auto original equipment to cosmetics. Yet, in terms of their approach to remaining competitive, there are many similarities that are identifiable.

Importance of International Sales. An important commonality among the eight companies was the fact that their international sales were becoming an increasing percentage of their total

sales. The current totals ranged from 20 to 65 percent of the company's entire business. In other words, these companies are deeply committed to international business, as it holds an important place for them in any future success(es).

In virtually every instance their international business (non-domestic sales) have been on the increase and are expected to continue to increase in the future. Further, all do at least some exporting from the U.S. and most see this trend to be on the increase as well. However, it should be noted that a few service less than 10 percent of their overseas sales from the U.S.

Entry methods. Considerable information was provided by the various companies regarding their overseas entry methods. Information on three different time periods were sought in this entry inquiry; prior-to-1982, current and future methods of entry. Pre-1982 was used as one time period, because our previous research suggested that this was the point prior to which the superdollar began to make its major impact and caused firms to rethink their overseas strategy. Next, current evidence suggests how the companies now operate overseas...after the superdollar's effect...and the future provides a basis for considering projected changes.

Clearly, most of the companies employed rather straightforward (non-complex) entry strategies prior to 1982. As one executive stated, "We either exported our products or served our markets from overseas production points that were wholly-owned." It was quite usual for one of these firms to rely heavily on

exporting or a combination of exporting and foreign sales offices. While a few did very limited licensing or had some joint venture arrangements, the bulk of overseas business had an export orientation. In the earlier national study by the author, it was found that most U.S. companies had primarily an "export-oriented mentality," i.e. first thought of exporting when considering overseas market possibilities, prior to 1982.

Current. In the period between 1982 and today, many companies, including a majority of these eight firms, have put in place modified entry strategies that begin to suggest a more "global outlook." It was not uncommon to find joint ventures and/or licensing to have been added to their list of entry approaches. But, today exporting is still considered their primary entry mode by about half the companies.

Future. The most dramatic changes, however, are projected for the future by several of the companies. The biggest change that is anticipated lies in the area of licensing. For example, one company that has employed a relatively limited-line of products to-date, now plans to license its name to several foreign companies to produce related products and to expand its product offerings. Another, plans to extensively license its technology overseas and to rely on its R&D successes to remain ahead of potential competition from its licensees. Similarly, a third company is increasingly becoming a licensee itself in order to expand its position.

In total, some three-fourths of the companies studied in this in-depth analysis see themselves employing more joint

ventures, licensing agreements, counter distribution, etc. This truly reflects a greater sophistication regarding their international business operations and market opportunities, as well as their recognized need for a hedge against increased encroachment (penetration) of their home market (U.S.) from overseas producers and the fluctuations of the dollar.

One executive stated that its competition is not above dumping in the U.S. and it needed a strategy of its own to keep it as a market leader. Besides keeping ahead through its own R&D efforts and licensing, this industrial producer is moving ahead in acquiring licenses as well. Further, it has expanded its line and is diversifying. In each instance, it has the state-of-the-art technology for its applications.

An especially interesting case is provided by a manufacturer of high speed bottle washing filtration and ultra-sonic cleaners equipment. This Cleveland firm has not been deterred by the move away from reusable bottles in the U.S. While its high speed bottle washers still retain the quality standard for its industry and sales are booming overseas where bottles still are typically reused, it has moved into areas like ultra-sonic cleaning for computer assembly. While still relying most heavily on exporting, this company has moved toward a more global perspective with worldwide projects that involve licensing, joint ventures, etc. To remain competitive, it has had to become more flexible in its worldwide operations.

Primary Contributor to competitiveness.

Undoubtedly, the most useful insights in this research project concerned the "whys" the eight firms offered for their ability to remain competitive overseas. Each was provided a list of possible reasons for their retained competitiveness that included factors such as product line completeness, R&D efforts, delivery/service, promotion, price, image and several others. Interestingly, none of the group considered price to be the prime reason for their competitiveness, and in fact, most indicated that their customers typically considered price to be much less important than considerations like delivery, quality, and product superiority.

Nearly three-fourths of the group consider the comprehensiveness of their product line to be their primary reason for their ability to compete overseas. This quality was followed closely by their product improvements and product superiority. Ranked third in importance was the reliability/availability of their delivery and service. However, several indicated that is was actually a combination of their product qualities, their R&D and delivery or credit that provided their edge.

Considering the variety of industries (consumer and industrial) represented by these eight companies, it appears that the advantages related to high product quality are relatively widespread. This offers a challenge to many firms that likely feel intimidated by their pricing disadvantages. However, where product differentials are clear and the competition has not reached the generic or commodity level, then the

potential for foreign market opportunities may still be real for quality producers.

Finally, in line with the above, only two or three of the firms felt that the improvement in the dollar was directly useful for them. Those still engaged solely in exporting found it helpful in some markets, as did the companies where one or more key components were exported from the U.S.

One high-tech company executive indicated that his company's competitiveness was directly tied to product quality and R&D. Only by staying constantly at the point in state-of-the-art product development was his company able to remain competitive. He indicates that pressure from a Japanese major is constant in every market around the world. . .yet, his company has held firm even with slightly higher prices.

Summary

An in-depth study of eight Northern Ohio companies supports the findings of an earlier national study by the author and adds particular insights as to how U.S. companies have held markets in spite of higher prices in some areas.

First, the study indicates that the companies have gotten even more competitive, although they have generally made strategic changes in their non-domestic operations since 1982. These changes have tended to be in (a) taking a more global view; (b) being more flexible and creative in market entry; and (c) making greater use of joint ventures, licensing, and out-sourcing.

Second, the companies have increased their overseas activities without dependence on the dollar position. In particular, the executives cite product line, product improvements and delivery as being the keys to their competitiveness. Good R&D and staying at the cutting edge in both development and quality are additional plusses. Price, itself, received little support as a factor in their competitiveness. One consumer product manufacturer was adamant in the importance of product quality and full-line. This executive also saw image, good distribution, and being able to spot marketing niches as being especially important to his company.

Methodology

How were the corporations chosen for this project? A deliberate effort was made to include firms of different size, product classification, and international experience. Two firms, for example, have extensive overseas operations - both wholly-owned and joint venture - and have had these direct investments for several years. In contrast, three firms rely almost solely on exporting to serve their markets overseas. Further, there is a blend of consumer and industrial (business-to-business) manufacturers included in this select group. And, none of these firms were direct competitors of one another, so that more than eight industrial classifications are represented.

The respondents in each organization were the individuals responsible for the firm's international operations; some were the corporation's president and in other instances the

appropriate international executive. Initial contact with each participant was by telephone and then each was sent a structured "questionnaire" that was designed primarily to establish the parameters for the more in-depth interview and facilitate discussion. After each received the questionnaire, a second telephone interview was then arranged (or the respondent chose to fill-out the questionnaire and return it with expanded comments). Several firms requested that their company remain anonymous since the questions regarding future overseas entry strategy could potentially provide proprietary information to their foreign competition. Among the firms participating and indicating a willingness to be identified were: Karg Corporation; Eaton Corporation; Bonnie Bell, Inc.; and Niagara Custombilt, Inc.

References

1 John K. Ryans Jr., "Beyond the Superdollar," and John K. Ryans Jr. and Lori Mitchell, "The Changing Face of American Foreign Trade," both in Business Marketing, January 1986, pp. 49, 56, 58, 59, 62, 66 and 67.

TABLE 1

PRIMARY METHODS USED TO SUPPLY FOREIGN MARKETS
PRIOR TO THE 1980s

	Cutting Edge	Fortune 500
Exports from U.S.	64.7%	84%
Exports from 3rd Country	11.8%	44%
Foreign Production	44.1%	56%
Joint Ventures	20.6%	58%
Licensing Abroad	14.7%	54%
Exports & Foreign Sales	20.6%	50%
Other	5.9%	4%

Note: The sum of the responses is greater than 100% due to multiple responses by some respondents.

TABLE 2
STRATEGY CHANGES CURRENTLY USED
TO SERVE FOREIGN MARKETS

Method	Cutting Edge Industries (N=21)	Fortune 500 Firms (N=35)
Expanding Overseas Production	78%	76%
More Licensing Agreements	72%	50%
Increased Joint Ventures	65%	59%
Cut Domestically-Directed Sales Force	53%	41%
Reorganized Foreign Operations	67%	76%

Note: Based on those handling overseas markets differently today than in pre-1980 days.

TABLE 3

FUTURE STRATEGIC PLANS FOR CHANGING
THE WAY FOREIGN MARKETS ARE SUPPLIED

Future Changes	ALREADY INITIATED		EXPLORING THESE OPTIONS	
	Fortune 500 Firms	Cutting Edge Firms	Fortune 500 Firms	Cutting Edge Firms
Increased Foreign Production	26%	68%	31%	52%
More Joint Ventures	50%	60%	42%	48%
Greater Off-Shore R & D	22%	36%	22%	20%
More Mergers in Key Markets	28%	24%	28%	40%
Expanded Third Country Exports	44%	20%	22%	48%
Global Reorganization	33%	28%	17%	12%
Increased Cross Marketing*	6%	12%	3%	16%

Note: Base includes only those firms making a change. Percentage totals exceed 100% because some firms indicated that they have already initiated changes in some markets and are also exploring possible changes in others.

*Cross-marketing involves establishing a network of joint distribution agreements with foreign partners.

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